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ABSTRACT

The 1964 booklet is a report on the Canadian educational system in the Northwest Territories and northern Quebec. Prepared by the Canadian Association of School Superintendents and Inspectors of Northern Affairs and Resources, it is intended as a description rather than an analysis or philosophical treatment of education north of the 60th parallel. According to the report, the system is "the most recently organized, the most remote, the most expensive per pupil, and the most complex system of education in Canada." It includes schools ranging in size from 1 room and 20 pupils at Reindeer Station, to 41 rooms with 44 teachers at Inuvik. The system serves an area of approximately 1,300,000 square miles and a population of only 26,000 multicultural and multilingual inhabitants (mainly Eskimos and other American Indians), or 1 person for every 50 square miles. Among the aims of the system are (1) to make elementary, secondary, and higher education available to all; (2) to include programs of vocational and adult education; (3) to broaden horizons, yet preserve cultures, offering new skills, yet not discarding the old; and (4) to introduce a second language as the language of instruction while maintaining and strengthening the mother tongue. The 10 chapters deal with various aspects of the educational system. (EJ)

THE CANADIAN SUPERINTENDENT 1964

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Education North of 60

A REPORT PREPARED BY MEMBERS OF THE CANADIAN ASSOCIATION OF SCHOOL SUPERINTENDENTS AND INSPECTORS IN THE DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

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Second Printing, 1965

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The Canadian Association of School Superintendents and Inspectors is indebted to Ryerson Press for making it possible to record a segment of the Canadian educational picture that heretofore, in this form, has not found its way into publication.

Appreciation is expressed also to Miss Ann M. Emmett, B.A., former Community Principal of the Igloolik Federal School, and Mr. Richard Fyfe, B.A., Curriculum Specialist, Education Division, for permission to publish excerpts from their reports.

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Foreword

This 1964 issue of the Canadian Superintendent is intended to offer a descriptive rather than an analytical or a philosophical treatment of education in the Northwest Territories and Northern Quebec. This is the first publication of its kind to deal with this twelfth system of public education in Canada. It is hoped that its many singular features may be of interest to Superintendents everywhere and that the chapters of this book may assist people in other parts of Canada in their understanding and interpretation of northern education.

I should like to thank the members of the editorial committee for their assistance in producing this volume. On their behalf I extend thanks also to those who contributed their time and effort in writing the chapters that constitute this book.

B. THORSTEINSSON,
Chairman, Editorial Committee

Avant-Propos

Cette édition du "Surintendant canadien 1964" veut traiter de l'éducation dans les Territoires du Nord-Ouest et dans la partie nord du Québec, d'une façon descriptive plutôt qu'analytique ou philosophique. C'est la première publication du genre ayant rapport au douzième régime d'instruction publique au Canada. Nous espérons que des Surintendants de partout seront intéressés par les différentes particularités du présent ouvrage et que sa lecture aidera les gens des autres parties du pays à comprendre et interpréter les modalités de l'enseignement dans le Nord canadien.

A cette occasion, j'aimerais remercier les membres du Comité de rédaction de leur concours à la préparation et cet ouvrage. En leur nom, j'exprime notre gratitude à ceux qui ont contribué de leur temps à la préparation des différents chapitres.

B. THORSTEINSSON,
Président du Comité de rédaction.

President's Message

> "All measures designed to promote education must depend for their success, in this country, on the hardy co-operation of public opinion. It is only by enlightening and concentrating that opinion that powerful effects can be produced."
>
> HORACE MANN

I wish to express to the administrative staff and the school superintendents of the Education Division, Northern Administration Branch, of the Department of Northern Affairs and National Resources the gratitude of the members of the Canadian Association of School Superintendents and Inspectors for their work in producing *The Canadian Superintendent, 1964.*

The title of Chapter I, namely, "Education at the Top of the World", stirs the imagination as it suggests the far-flung variety, difficulties and opportunities associated with the educational enterprises for which those who have prepared this Yearbook are responsible. As President, I congratulate all who have shared in the preparation of this highly interesting and informative publication.

It is the hope of the members of CASSI that the present Yearbook will quicken general interest in the objectives and special problems of educational administration for the far northern reaches of our country. Increased public awareness of the difficulties encountered and the successes achieved should assist the further development of educational policy designed for the special needs of these distant areas.

Our Association is a voluntary organization of Canadian educators with membership in all 10 provinces. Growing in numbers and possessing the strength derived from unity of purpose, it is becoming an increasingly important influence in the national aspects of education in this country: this Yearbook represents a significant educational service by the Association, one made possible through the continuing active interest of our members and by the generous co-operation of The Ryerson Press.

MICHAEL EWANCHUK,
President.

Message du Président

> "Le succès de toutes les mesures visant à répandre l'enseignement dépend, dans le pays, du solide appui que lui apporte l'opinion publique. Ces mesures ne seront efficaces que si l'opinion publique est éclairée et si elle porte toute son attention sur la question." (Traduction)
>
> HORACE MANN

Je désire témoigner la gratitude des membres de l'Association canadienne des surintendants et inspecteurs d'écoles envers le personnel administratif et les surintendants des écoles de la Division de l'éducation de la Direction des régions septentrionales du ministère du Nord canadien et des Ressources nationales pour le concours qu'ils ont apporté à la rédaction de la brochure intitulée: *The Canadian Superintendent, 1964.*

Le titre du premier chapitre, soit "Education at the Top of the World" (L'Education au Sommet du Monde) exalte l'imagination par son évocation des vastes différences, difficultés et occasions inhérentes aux initiatives éducatives qui incombent aux rédacteurs du présent annuaire. A titre de président, je félicite tous ceux qui ont contribué de près ou de loin à la préparation de cette très intéressante et très instructive publication.

Les membres de l'Association espèrent que le présent annuaire stimulera l'intérêt du public envers les objectifs et les problèmes particuliers de l'administration scolaire dans les étendues boréales de notre pays. Le fait que la population soit mieux renseignée sur les difficultés à surmonter et sur les succès réalisés par les enseignants dans ces régions devrait faciliter l'établissement d'une ligne de conduite plus élaborée en matière d'éducation, dans le dessein de répondre aux besoins particuliers de ces terres éloignées.

Notre Association est un organisme bénévole composé d'éducateurs canadiens recrutés dans chacune des dix provinces. Forte de l'effort commun auquel tendent tous ses membres, dont le nombre s'accroît sans cesse, l'Association est en voie d'exercer une influence de plus en plus importante sur les aspects nationaux de l'enseignement dans notre pays. Le présent annuaire représente une contribution considérable de l'Association au domaine de l'enseignement, laquelle a été rendue possible grâce à l'intérêt et à l'activité continus de nos membres, ainsi qu'au généreux concours de la société Ryerson Press.

Le président

MICHAEL EWANCHUK

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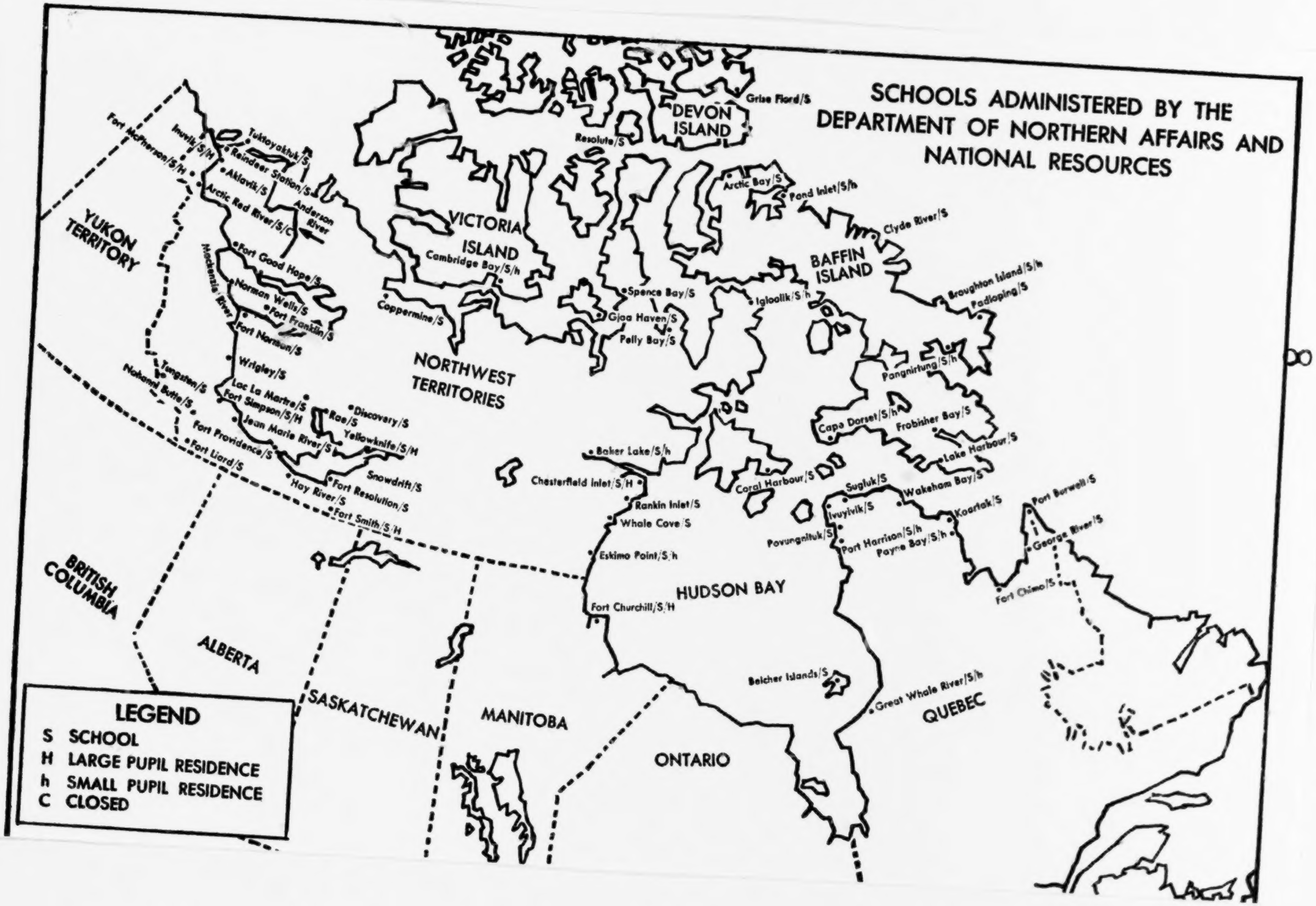

SCHOOLS ADMINISTERED BY THE DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

DEVON ISLAND
Grise Fiord/S
Resolute/S
VICTORIA ISLAND
Cambridge Bay/S/h
BAFFIN ISLAND
Arctic Bay/S
Pond Inlet/S/h
Clyde River/S
Broughton Island/S/h
Padloping/S
Igloolik/S/h
Spence Bay/S
Gjoa Haven/S
Pelly Bay/S
Pangnirtung/S/h
Cape Dorset/S/h
Frobisher Bay/S
Lake Harbour/S
Coral Harbour/S
Sugluk/S
Wakeham Bay/S
Ivuyivik/S
Koartak/S
Port Burwell/S
George River/S
Povungnituk/S
Port Harrison/S/h
Payne Bay/S/h
Fort Chimo/S
YUKON TERRITORY
Fort McPherson/S/H
Inuvik/S/H
Tuktoyaktuk/S
Reindeer Station/S
Aklavik/S
Arctic Red River/S/C
Anderson River
Fort Good Hope/S
Mackenzie River
Norman Wells/S
Fort Franklin/S
Fort Norman/S
Wrigley/S
Tungsten/S
Nahanni Butte/S
Lac La Martre/S
Fort Simpson/S/H
Jean Marie River/S
Fort Providence/S
Fort Liard/S
Rae/S
Discovery/S
Yellowknife/S/H
Snowdrift/S
Hay River/S
Fort Resolution/S
Fort Smith/S/H
Coppermine/S
NORTHWEST TERRITORIES
Baker Lake/S/h
Chesterfield Inlet/S/H
Rankin Inlet/S
Whale Cove/S
Eskimo Point/S/h
Fort Churchill/S/H
HUDSON BAY
Belcher Islands/S
Great Whale River/S/h
QUEBEC
ONTARIO
MANITOBA
SASKATCHEWAN
ALBERTA
BRITISH COLUMBIA
LEGEND
S SCHOOL
H LARGE PUPIL RESIDENCE
h SMALL PUPIL RESIDENCE
C CLOSED

Chapter 1

Education at the top of the World

—an overview

Stretching northward from the sixtieth parallel deep into the still and lonely reaches of the Canadian Arctic is the most recently organized, the most remote, the most expensive per pupil, and the most complex system of public education in Canada. This educational system, the twelfth in Canada, is so new that it is, in some respects at least, still in its formative stage. Here in this sparsely settled northern frontier of 1,300,000 square miles, there are only 26,000 inhabitants. They are a multi-cultural, multi-lingual and socially mobile people. The schools that have been established for them are ethnically integrated throughout, and serve not only the Northwest Territories but also the Eskimos of northern Quebec.

In this most newly established school system there are schools ranging in size from one room with 20 pupils at Reindeer Station, a settlement at the mouth of the Mackenzie, to 41 rooms with 44 teachers at Inuvik 70 miles away. The school facilities are as modern as those in southern Canada.

In the more populated settlements in the Mackenzie Valley, some schools have been in operation for a number of years. In the larger schools, and in the upper Mackenzie in particular, pupils are enrolled in all grades from 1-12 and progress is much the same as that found in similar schools in southern Canada. In the less populated settlements farther north and to the east progress has been less rapid.

THE COUNTRY AND THE PEOPLE

Imagine an area in northern Canada with a man-land ratio of 0.02:1, or only one person for every 50 square miles, an area occupying one-third of the land mass of the Dominion. In it are

—5000 Indians in scattered settlements, who belong to nine different tribes,

—11,000 Eskimos in varying stages of acculturation, living in small groups here and there and speaking 20 different dialects, and

—10,000 others in the more permanent towns and settlements.

These constitute the people for whom the educational services have been provided.

A fascinating but austere land is this! In general it is divided in two by the tree line, which marks the northern edge of the tree-bearing area and which runs in a south-easterly direction from the mouth of the Mackenzie to a point just north of where the sixtieth parallel cuts the western shore of Hudson Bay. The southern half, the sub-Arctic, affords sustenance and nurture to the nine different Indian tribes who hunt and trap in the woods, and fish the lakes and streams. These are the Loucheux, the Dogrib, the Chipewyan, the Slaves, the Hare, the Athabaska, the Cree, the Yellowknife, and the Nahanni, each tribe with its own language, beliefs and customs.

The northern half, often referred to as the Arctic, is rugged, treeless and forbidding. For 5000 years it has served as the austere host to the handful of Eskimos who roamed these barren lands. These northern wastes of lake-speckled tundra are composed of vast sedimentary and pre-cambrian empires, which only in very recent years have offered promise of a truly impressive economic future. The Eskimos who dwell there on the open tundra or on the barren rocks, like the Indians to the south, have their own language, their own beliefs and their own ways of life. Their ways, for these many centuries past, have been the ways of the nomad and the hunter.

Now, with fingers of southern culture stretching ever northward and entangling themselves everywhere in the fabric of northern life, change is the order of the day. As is inevitable, when two cultures meet under conditions where free choice prevails or circumstance dictates, each will draw from the other those elements that time and place determine as being most suited to it. Just as those who move from the south into the north adopt the parka and the crow-boot as the most suitable winter garb, in like manner the indigenous people within the Territories adopt from southern Canadians various styles of manners and customs.

The 10,000 "others" who constitute the white population live mainly in the towns, the most populous of which are located in the Mackenzie Valley. Many of these people are engaged in natural resource development, in commerce or in administration. The children of these people share with the Indians and the Eskimos the schools, and as needed, the pupil residences.

As communication between these divergent population groups gradually grew and expanded it became obvious that education should be so structured as to ensure a considerable degree of universality, stability and continuity. This was achieved through the establishment in 1955 of an ethnically integrated school system. At that time the responsibility for Indian education within the Territories was transferred from the Department of Citizenship and Immigration to the Department of Northern Affairs and National Resources.

THE SCHOOL SYSTEM

Bring together these divergent elements and build a school system, one that

—makes elementary, secondary and higher education available to all

—includes programmes of vocational and adult education

—broadens horizons, yet preserves cultures, offering new skills yet not discarding the old

—introduces a second language as the language of instruction while maintaining and strengthening the mother tongue

—directs attention to new modes of behaviour without disparaging the mores of the race

and one glimpses the challenge facing the educational system of the N.W.T.

Because the present unified system of school organization was instituted barely nine years ago, and because the present rate of classroom construction in remote areas is circumscribed by limiting physical factors, it has not yet been possible to provide classrooms for all pupil in all parts of the Territories. On the basis of present planning, it is expected that schooling in local settlements or in central schools will be provided for all children by 1968.

Schools cannot always be brought to the pupils, so the pupils (with parental consent) are brought to the schools. In late August each year an extensive air-lift is undertaken to convey pupils from their homes to school. There they are settled into modern pupil residences adjacent to the schools. In the larger settlements of the Mackenzie Valley seven fully modern and well-equipped pupil residences are located, ranging in size from 75 to 250-bed capacity, with gymnasia, play areas and sick bays. In the Eastern Arctic, similar accommodation is provided in smaller residences designed to simulate more closely the home situation.

Many of the pupils now in school who come from the smaller settlements or the more remote areas have not been enrolled long enough to have remained for the normal length of time in each of the grades. Many of the schools have been so recently constructed and the pupils have occupied them for so short a time that an age-grade table has little meaning. Here, when a child enrols in a school for the first time at the age of 10, 12 or 16 and the language of instruction is not his mother tongue he will, even though he run twice as fast to catch up and has the best of instruction, remain age-grade retarded for some time.

Schooling in the normal sense begins with Grade 1, and continues to the end of the first year of university. Different grade groupings are arranged according to the circumstances. Some schools accommodate only Grades 1-6, some Grades 1-9, and others Grades 1-12. However, the educational services offered within the territories are much more than a graded school system. In the field of vocational education, opportunity to acquire saleable skills and knowledge is extended at public expense to those persons who are interested and willing to learn. In the field of higher education, qualified persons are financed through technical school or university.

UNIQUE FEATURES

There are several unique and interesting features to Northern Education. For example, here in Canada where it is generally accepted that schooling is universal, and that equality of educational opportunity is broadly based and effectively extended, there are small but significant groups of aboriginal people who face staggering problems in education. These problems are not unlike those faced by many people in the developing countries. These problems relate in the simplest of terms to such as care of the home, sanitation, health, communication, employment, to liquor and its use, and the use of money. Many of the aboriginal people have, but for the past few years, been quite isolated from normal association with their fellow Canadians to the south. Not long ago, they lived much as had their forbears for century upon century before them. Their requirement for education was circumscribed within the narrow limits set by their physical surroundings and the need for communication, food, shelter and clothing. Their curriculum did not require periodic revision: it was not dynamic, but it was valid. It remained constant for a thousand years—and more! The hunter knew well what skills his numerous sons had to acquire—the same as he and his father before him, and all the fathers before his father had themselves acquired, as far back into the centuries as tales could relate. There was no mobility in this society. Now all this is rapidly changing. Many of these people, faced with diminishing food resources and an ever increasing population are seeking to negotiate a transformation from their traditional ways of life to one sustained through wage employment.

One might point to several other unique characteristics of this northern school system: that in the vast expanse of northern Canada the school system which, geographically speaking, must be one of the largest single systems on the globe, is administered and supervised by a department of the federal government; that this system, while providing for the right of the religious minorities — the Roman Catholic on the one hand and the non-Roman Catholic on the other —is ethnically integrated throughout; and that the northernmost school located at Grise Fiord is just 900 miles from the Pole but 1800 miles from the national capital, and is closer to Norway, Finland and Russia than it is to Ottawa. The teacher's position is unusual in that he is engaged in a variety of *community* activities such as adult education, as he is one of a team working very closely with others, especially with the local administrator to achieve a full-bodied and integrated service within the community. As a group, the teachers in the N.W.T. (almost one-third hold university degrees and all must be fully certificated and should be experienced) are shown, when compared with teachers in various provinces, to possess professional qualifications among the highest in Canada. Finally, for those students who qualify for university entrance, a programme, the first in Canada, extends education at public expense to the end of the fourth year of university.

One interesting condition under which northern schools operate relates to climate. During the short summer, temperatures are so moderate that myriads of tiny Arctic flowers bloom in profusion. Precipitation is surprisingly light not only in the summer, but throughout the year. Due to the temperate summer weather, effective use is made of the waterways in delivering to each northern school and outpost the following year's supplies of food, materials and equipment.

In winter, temperatures of 50° to 60° below are not unusual and stretches of 25°-40° below are common in some places. The wind sometimes blows relentlessly for days on end. The pupils do not seem to mind the cold. The boys play hockey on outdoor rinks or football and softball in the snow at 20°-30° below zero, and small girls play "jacks" in the sunshine on the school steps at 25° below!

SCHOOL ORGANIZATION ON RELIGIOUS BASIS

As is the case in some provinces, provision is made in law for the right of a religious minority to establish separate schools. As a result of the paucity of financial resources and the relatively high costs involved in building schools, provision is made in some cases to accommodate the pupils of different religious classifications in separate wings of the same school or in separate classrooms within a school. This is an accommodation intended to extend the right of separation without incurring the added expense of duplicating facilities.

Principals and teachers are engaged and assigned to schools and classrooms according to their religious classification. A principal of a school is of the same religious classification, either Roman Catholic or non-Roman Catholic, as the majority of the pupils in the school. A teacher is assigned to a classroom in like manner according to the religion of the majority of the pupils in the classroom. As in some provinces in Canada, provision is made for religious instruction during the last half-hour of the school day. Schools may open daily with the Lord's Prayer.

ADMINISTRATION OF THE SCHOOL SYSTEM

This educational system within the Territories is organized, administered and supervised by the Department of Northern Affairs and National Resources, a department of the federal government. It is far from being the common custom in Canada to have public education organized and administered by a federal department of government: the explanation for this anomaly is quite logical and very simple.

Under the Northwest Territories Act, an Act passed by the Canadian Parliament, authority to legislate in respect of education within the Territories is assigned to the Council of the Northwest Territories. This pattern of allocation of authority follows the same principle as was employed in the distribution of powers under the British North America Act. By that Act the right to legislate in respect of education within a province was assigned to the individual provincial legislature. In like manner, under the N.W.T. Act, a similar authority in respect of the Territories was placed in the hands of the Territorial Council. Because the N.W.T. Council has no civil service to which it can assign the task of organizing and administering a school system, and because the Federal Government has itself to provide education for Indians and Eskimos, for whose education it had accepted responsibility, the Territorial Council exercised its right to legislate by enacting a school ordinance and by entering into an agreement with the Federal Government. Under this agreement the Federal Government undertakes to provide schooling not only for the Indian and the Eskimo children, but for all children. The Territorial Government in turn agrees to pay the Federal Government a sum equal to the cost of the schooling of all children other than Indian or Eskimo. By this means the N.W.T. Council undertakes a financial responsibility in respect of the education for those for whom it has the right to legislate. By this means, too, duplication of school facilities and the added costs involved in duplication are avoided, and an ethnically integrated school system is brought into being.

This is an interesting arrangement, unique in Canadian education, whereby the Territorial Council, the powers and duties of which fall into a similar category within the Territories, as do the powers and duties of a provincial legislature within a province, has exercised its right to legislate in respect of education by contracting its educational service from a federal department of government. Under the circumstances this is not only convenient but practical and economical.

The provisions of the school ordinance passed by the Territorial Council are applied to all pupils. The ordinance provides for decentralized school administration through the establishment of school districts operated by boards of school trustees locally elected. To date only three school districts have been so organized: Yellowknife Public School District No. 1, Yellowknife Roman Catholic Separate School District No. 2, and Hay River Roman Catholic Separate School District No. 3. As communities grow and greater economic stability is achieved the tax base will be strengthened. When this occurs, provision for local control and administration on a unit base embracing several communities might well become a pattern of organization. Because settlements are far apart, and due to the divergence in the taxation base from community to community, the modern concept of the large local unit of school administration so successfully applied in some parts of Canada has not yet been introduced to the Territories.

Schools not operated by school districts are established, administered and supervised by the federal authority and are referred to as federal schools. Those of a school district, on the other hand, are established and administered by the school district concerned under the authority provided in the school ordinance. All are supervised and inspected by the federal authority.

Matching grants and flat grants-in-aid are paid by the Territorial Government to the local board of school trustees. Capital grants include an amount equal to 50% of approved capital costs. Operating grants are calculated on a per pupil basis and are adjusted from time to time.

To administer the affairs of northern Canada there is established in Ottawa a Branch of the Department of Northern Affairs and National Resources known as the Northern Administration Branch. Within this Branch is the Education Division, whose function in respect of territorial education is similar to that of a provincial Department of Education in respect of a provincial system of education. The authority for the policies pursued by the Education Division derives from both the Territorial Council and from the Federal Government. For example, the school ordinance under which the schools operate is an instrument of the Territorial Government, but the day-to-day operation is by agreement carried on under federal administration.

The Education Division is composed of five sections: School Services, Administrative Service Co-ordination, Adult Education, Technical and Vocational Education, and Curriculum. Each Section supplies staff service within its field of activity. The head of each Section reports to the Chief of the Division, who co-ordinates the work of the sections, administers the Division, directs through field offices the educational services within the Territories and advises the Territorial and the Federal Governments on educational policy.

Much of the work of each section is carried on in the field. In curriculum for example, activity is heavily field centred. Local committees have been established to participate with the curriculum specialists of the Division in modification and construction of courses.

To achieve a measure of decentralized administration two field offices have been established, one for the Mackenzie District, located at Fort Smith and one for the Eastern Arctic, in Ottawa. The Ottawa location for this office is dictated in large measure by the established air routes and by convenience in travel.

The field offices carry on the function of the day-to-day school operation and the other educational services within the Territories, in a manner similar to the way a large unit of school administration operates in one of the western provinces. The Education Division in Ottawa, on the other hand, operates as stated above in a manner similar to a provincial Department of Education. While this delineates in general the allocated functions, there are some variations.

The future points to a time when the Mackenzie District, to take an example, may become a separate territory and eventually a province. In preparation for such change the administration has been undergoing decentralization. The present field officers constitute the nucleus of a Territorial school administration, and authority is being delegated gradually to them on a functional basis. Under present circumstances some functions are better suited to decentralization than others. At any given time in the progression toward territorial or provincial status there is an appropriate measure of decentralization, and efforts are made to keep the process on a suitable time schedule.

A long step in decentralization has been taken. Such things as the hiring and the supervision of teachers, the inspection of schools, and the purchase of supplies are handled in the field. The field is also heavily involved in curriculum development, in the in-service training programme for teachers, in the administration of vocational education, in planning for new school accommodation, and in the preparation of estimates. The Education Division, on the other hand, concerns itself with general overall policy and planning, with supplying resources service in various fields, with curriculum development, finance and with regulation.

EDUCATIONAL OBJECTIVES

In this northern land, which constitutes one-third the area of Canada and where such divergent population groups live in widely scattered settlements, travel is often difficult and communication is hampered by many dialects and languages. Great gaps between cultures span time as broad as centuries and only now is change spreading into the ways of life of the once static cultures of the north. What, therefore, are the aims and the purposes of education?

In brief the general objectives of education are basically the same as they are anywhere. All positive education aims at offering those kinds of experiences and developing that kind of understanding which will aid in the building of character, enhance the power to think creatively and critically, impart and extend knowledge and transmit useful skills in such a way as to develop well integrated, knowledgeable and productive persons, useful to themselves and to their fellow men—all this to be achieved through conscious and co-operative effort, in a setting the context of which is rich in overtones of the local culture.

The real problem, however, is not so much in establishing objectives in education as in determining how they should be pursued, and in discovering the most effective way of achieving them. Answers to these challenging problems are being sought by a corps of well qualified experienced teachers whose imagination and resources are fully committed in their devotion to the people with whom they labour.

For the young, general education is modified in pattern to suit the demands of various settings. To aid pupils who are in this situation, modifications and adaptations are made to the courses of studies to render more valid and meaningful the course content. Class size averages less than 25 per teacher and differentiated instruction is employed in an effort to accelerate progress. Audio and visual aids are extensively used and elements of local culture are employed to promote learning, teaching sequences being so arranged as to facilitate the acquisition of knowledge and the mastery of skills.

For the older generation emphasis is placed upon the utilitarian values in education for these are most readily understood and accepted. For them training for productive employment in a wage economy is a long and complicated undertaking because it requires, in a bewildering setting, many adjustments to a new and strange way of life.

At present it is probably too early to gauge the success of the efforts which are being made to achieve this great transformation, but they are not being expended in vain.

Chapitre 1

L'Education au Sommet du Monde

Aperçu d'ensemble

Au nord du 60e parallèle et jusqu'aux confins figés et presque inhabités de l'Arctique canadien, se trouve le système public d'éducation le plus récent, le plus épars, le plus vaste et le plus complexe du Canada. Ce système scolaire, le douzième au Canada, est si nouveau qu'au moins sous certains aspects il en est encore à la phase de formation. Il n'y a, dans cette immense région d'un million trois cents port aérien des écoliers, de leur foyer jusqu'à l'école. Dans les sont de culture et de langue différentes, en plus de former des groupes sociaux d'une grande mobilité. Dans toutes les écoles fondées à leur intention, il n'y a aucune distinction de race et l'on y trouve non seulement des habitants des Territoires du Nord-Ouest, mais aussi des Esquimaux du Nord du Québec.

Dans ce système d'éducation de fondation toute récente, les écoles sont de grandeurs bien diverses, certaines n'ayant qu'une seule classe d'une vingtaine d'élèves comme à Reindeer Station, petit établissement sis à l'embouchure du Mackenzie, et d'autres jusqu'à 41 classes et 44 instituteurs comme à Inuvik, à 70 milles de distance. Ces écoles sont aussi modernes que celles du sud du Canada.

Dans les établissements d'assez forte population situés dans la vallée du Mackenzie, certaines écoles fonctionnent depuis plusieurs années. Dans les grandes écoles, notamment en bordure du cours supérieur du Mackenzie, les élèves sont répartis en classes de la 1re à la 12e année et avancent dans leurs études à peu près de la même façon que dans les écoles équivalentes du sud du Canada. Dans les petits établissements situés plus au nord et à l'est, les élèves font de moins rapides progrès.

ASPECT GENERAL DE LA CONTREE ET DE SA POPULATION

Imaginons une grande région du Nord canadien dont la densité de population ne soit que de 2 p. 100, soit un habitant par 50 milles carrés, et dont la superficie équivale au tiers de la superficie terrestre du pays, dans laquelle 5000 Indiens de neuf tribus différentes forment des établissements épars; où 11,000 Esquimaux diversement évolués vivent en petits groupes ici et là, et parlent 20 dialectes différents; et où quelque 10,000 autres habitants vivent dans les villes et villages établis en permanence. Voilà la composition de la population que dessert le système d'éducation.

Quant à la contrée, quel aspect fascinant quoique austère! Généralement parlant, elle est divisée en deux par la limite de végétation arborescente, soit la bordure septentrionale des terres boisées, qui va en direction sud-est de l'embouchure du Mackenzie jusqu'à un point situé juste au nord de l'intersection du 60^e parallèle avec la côte ouest de la baie d'Hudson. Au sud de cette limite, soit dans la région sub-arctique, se trouvent les neuf différentes tribus indiennes qui vivent de la chasse et du piégeage dans les bois, ainsi que de la pêche dans les lacs et les cours d'eau. Ces neuf tribus sont les Loucheux, les Plats-côtés-de-chiens, les Chippewas, les Esclaves, les Peaux-de-lièvres, les Athapascans, les Cris, les Couteaux jaunes et les Nahanais, chaque tribu ayant une langue, des croyances et des moeurs qui lui sont propres.

La région nord, souvent appelée l'Arctique, est accidentée, dépourvue d'arbres et inhospitalière. Depuis 5000 ans, cette région est l'austère habitat de poignées d'Esquimaux nomades. Ces vastes étendues dénudées de toundra parsemée de lacs sont formées de terrains sédimentaires et précambriens qui ne se sont révélés que ces toutes dernières années prometteurs d'un avenir économique vraiment impressionnant. Les Esquimaux qui vivent dans ce pays de toundra à perte de vue et de roc dénudé, comme les Indiens habitant au sud, ont leur propre langue, leurs propres croyances et leur propre mode de vie. Leurs coutumes, au cours des siècles passés, ont été celles du nomade et du chasseur.

Maintenant que la culture des gens du Sud s'infiltre ici et là de plus en plus loin vers le nord et s'enchevêtre partout dans la trame de la vie dans le Nord, l'évolution est à l'ordre du jour. Comme la chose est inévitable lorsque deux cultures se rencontrent dans des conditions où prévalent le libre arbitre et les dictées des circonstances, chacune adopte de l'autre des éléments que le temps et le lieu indiquent comme lui convenant le mieux. Tout comme les gens du Sud qui vont s'établir dans le Nord, adoptent le parka et les kamiks ou bottes esquimaudes comme vêtements d'hiver les plus appropriés, de même les indigènes des territoires adoptent divers manières et coutumes des Canadiens du Sud.

Les 10,000 autres habitants que constitue la population blanche, demeurent surtout dans les villes, dont les plus populeuses sont situées dans la vallée du Mackenzie. Plusieurs d'entre eux s'occupent de mise en valeur des ressources naturelles, de commerce ou d'administration. Leurs enfants fréquentent les écoles avec les Indiens et les Esquimaux, de même que les résidences d'écoliers, au besoin.

A mesure que les contacts entre ces groupes différents de population se sont intensifis et amplifiés, il devint évident qu'il faudrait organiser le régime scolaire de façon à lui assurer un haut degré d'universalité, de stabilité et de continuité. On y est parvenu en créant, en 1955, un système scolaire excluant toute distinction de race. A ce moment, la responsabilité de l'éducation des Indiens dans les limites des territoires fut transférée du ministère de la Citoyenneté et de l'Immigration à celui du Nord canadien et des Ressources nationales.

LE SYSTEME SCOLAIRE

En essayant de réunir tous ces éléments bien différents pour un système d'éducation qui

- —contient les niveaux primaire, secondaire et supérieur
- —contient des programmes de cours de métiers et d'éducation des adults
- —contient des programmes d'études qui élargissent les horizons des écoliers tout en leur conservant leur culture propre
- —enseigne de nouvelles occupations sans négliger les anciennes
- —enseigne une langue seconde en tant que langue d'enseignement, tout en conservant et en ancrant d'avantage la langue maternelle
- —met en lumière de nouveaux comportements sans décrier les moeurs raciales

on réalise seulement une petite part de toutes les difficultés d'une besogne que celle du système scolaire des Territoires du Nord-Ouest.

Vu que le présent système uniforme d'organisation scolaire n'a été créé qu'il y a neuf ans à peine, et que le rythme actuel de construction scolaire dans les endroits isolés est soumis à certaines restrictions d'ordre matériel, on n'a pas encore réussi à fournir des classes à tous les enfants d'âge scolaire dans toutes les parties des territoires. D'après les plans actuels, il devrait y avoir des écoles dans certains établissements ou des écoles régionales pour accueillir tous les enfants, d'ici 1968.

Comme l'école ne peut pas toujours être rapprochée des écoliers, on amène ces derniers à l'école, avec le consentement des parents. Vers la fin d'août chaque année, a lieu une vaste opération de transport aérien des écoliers, de leur foyer jusqu'à l'école. Dans les établissements assez populeux de la vallée du Mackenzie se trouvent sept résidences très modernes et bien aménagées pour les écoliers, ayant une capacité de 75 à 250 lits chacune et pourvues de gymnases, de salles de jeu et d'infirmeries. Dans l'est de l'Arctique canadien, des petites résidences pourvues de facilités équivalentes sont de conception plus rapprochée des conditions de vie au foyer.

Beaucoup des écoliers actuellement inscrits aux écoles des petits établissements ou des endroits isolés n'ont pas passé à l'école le temps habituel de classe de chaque année. Plusieurs écoles sont de construction si récente et les écoliers les fréquentent depuis si peu de temps qu'un tableau des âges en regard des années de classe aurait bien peu de signification. Dans ces conditions, lorsqu'un enfant fait sa première entré à l'école à l'âge de 10, 12 ou 16 ans et que l'enseignement se donne dans une autre langue que sa langue maternelle, il a beau s'efforcer de gagner du temps et l'enseignement a beau être de la meilleure qualité, cet écolier reste en retard durant un certain temps.

L'enseignement scolaire proprement dit commence par la première année et se poursuit jusqu'à la première année de cours universitaires. Il faut souvent grouper plus d'une classe selon les circonstances. Dans certaines écoles, il n'y a que des classes de 1re à 6e année, et dans les autres, des classes de 1re à 9e année ou de 1re à 12e année. Cependant, l'enseignment diversifie, qui se donne dans les territoires, comporte beaucoup plus que ce qu'on entend par un système scolaire régulier. Sur le plan de l'enseignement professionnel, les gens intéressés et décidés à s'instruire peuvent apprendre des métiers rémunérateurs et perfectionner leur instruction, aux frais de l'État. Quant à l'enseignement supérieur, les personnes jugées aptes obtiennent de l'aide financière pour fréquenter l'école technique ou l'université.

PARTICULARITES

Le système scolaire de l'Arctique possède plusieurs, particularités aussi singulières qu'intéressantes. Chez nous au Canada, par exemple, où l'on prend pour acquis le principe de la fréquentation scolaire universelle et où celui d'une égale facilité d'accès à l'éducation est appliqué efficacement d'une façon générale, on trouve de nos jours de petits groupes d'indigènes qui font face à des obstacles insurmontables à leur éducation. Ces obstacles sont à peu près les mêmes que ceux que doivent surmonter les pays en voie d'évolution. Ces difficultés se résument tout simplement aux soins ménagers, à la salubrité, à l'hygiène, aux communications, au travail, à la consommation des boissons alcooliques et à l'usage de l'argent. Nombreux sont les indigènes de l'Arctique qui, il y a quelques années à peine, étaient pour ainsi dire complètement isolés de leurs concitoyens du sud du pays. Il n'y a pas bien longtemps, ils vivaient comme avaient vécu leurs ancêtres pendant des siècles et des siècles. Leur instruction se bornait aux connaissances limitées par leur entourage immédiat et par leurs besoins en matière de communication, de nourriture, de logement et d'habillement. Point n'était besoin de reviser le programme! Le programme n'avait rien de frappant, mais il suffisait aux besoins de la cause! Il est resté le même pendant plus de mille ans! Le chasseur savait on ne peut mieux quels talents ses fils devraient acquérir: c'étaient les mêmes talents dont lui et son père avaient fait montre, ainsi que tous leurs aïeux, aussi loin que les légendes aient pu le lui rappeler. La société d'alors était on ne peut plus stable. De nos jours, tout cet édifice social s'écroule. Parmi ces gens-là, nombreux sont ceux qui, voyant diminuer leurs ressources en nourriture, tandis que la population s'accroît à un rythme accéléré, essayent de transformer leur mode traditionnel de vie en se cherchant un emploi rémunéré.

Le système scolaire de l'Arctique a d'autres caractéristiques qui lui sont propres: dans l'immense superficie du Nord canadien, le système scolaire, sans doute, du point de vue géographique, le plus vaste qui soit au monde, est administré et dirigé par un ministère du gouvernement fédéral; ce système, tout en respectant les droits des groupes minoritaires en matière de religion, ceux des catholiques d'une part et ceux des non-catholiques d'autre part, reste un système unique; l'école située le plus au nord ne se trouve qu'à 900 milles du Pôle nord, mais à 1800 milles de la capitale du pays, et se trouve donc plus près de la Norvège, de la Finlande et de la Russie que d'Ottawa. Le rang social de l'instituteur au sein de la communauté est en quelque sorte unique, puisqu'il s'occupe entre autres choses de l'éducation des adultes, et il sait qu'il fait partie d'une équipe qui travaille de concert avec l'administrateur local et autres, afin de fournir un service compact et unifié au sein de la collectivité. Dans l'ensemble, les instituteurs des Territoires du Nord-Ouest (un sur trois est détenteur d'un diplôme universitaire et ils sont tous compétent et dûment accrédités) possèdent une compétence professionnelle qui soutient favorablement la comparaison avec celle des instituteurs des autres provinces du Canada. Enfin, un programme a été élaboré, qui prévoit que les élèves admissibles à l'Université pourront obtenir leur instruction jusqu'à la quatrième année d'Université aux frais de l'État.

Un des traits intéressants du système scolaire de l'Arctique est évidemment le climat sous lequel ce système doit fonctionner. Durant le bref été boréal, le temps est si doux que des myriades de fleurs arctiques s'épanouissent abondantement. La précipitation est étonnamment faible, non seulement en été, mais durant toute l'année. Le temps doux qui prévaut en été permet de livrer par cours d'eau aux écoles de l'Arctique tout l'approvisionnement pour une année: denrées alimentaires, fournitures et matériel scolaire.

Il n'est pas rare qu'en hiver le thermomètre enregistre des températures de 50 à 60 degrés sous zéro, et en certains endroits la température normale en hiver se situe entre 25 et 40 degrés sous zéro. Le vent souffle parfois sans répit pendant des journées entières. Les élèves supportent parfaitement le froid. Les garçons font du hockey sur glace, du football ou de la balle à main au dehors, dans la neige, alors que le thermomètre descend à 20 ou 30 degrés sous zéro, tandis que les filles jouent aux osselets sur les marches de l'école, au soleil mais par une température de 25 degrés sous zéro!

ORGANISATION DU REGIME SCOLAIRE PROFESSIONNEL

Tout comme dans certaines provinces, la loi prévoit que tout groupe religieux minoritaire a le droit d'établir des écoles séparées. A cause de la modicité des ressources financières et du coût relativement élevé des bâtiments scolaires, on a pris en certains endroits des mesures qui permettent à diverses confessions d'enseigner dans des ailes différentes d'un même bâtiment scolaire, ou même dans des salles de classe différentes. Ces arrangements visent à permettre l'enseignement séparé tout en évitant le supplément de frais qu'entraîneraient la construction et le fonctionnement de deux écoles au lieu d'une.

Les instituteurs et les directeurs d'école sont embauchés et affectés à certaines écoles ou classes selon leur confession. Le directeur d'école est soit catholique, soit protestant, selon que le majorité des élèves appartiennent à l'une ou à l'autre confession. L'instituteur est affecté à une classe, selon le même principe, d'après la religion du groupe majoritaire de la classe. Tout comme dans certaines provinces canadiennes, l'instruction religieuse se donne durant la dernière demi-heure de la journée scolaire. Il est permis de commencer la journée en récitant le Pater Noster.

ADMINISTRATION DU SYSTEME SCOLAIRE

Le système scolaire des Territoires du Nord-Ouest est organisé, administré et dirigé par le ministère du Nord canadien et des Ressources nationales, qui est un ministère fédéral. C'est là un des rares cas où l'enseignement public soit organisé et administré par un ministère du gouvernement fédéral. Toutefois, cette anomalie peut s'expliquer en toute logique et en toute simplicité.

En vertu de la Loi des Territoires du Nord-Ouest, adoptée par le Parlement canadien, le pouvoir de légiférer en matière d'enseignement dans les Territoires du Nord-Ouest a été conféré au Conseil des Territoires du Nord-Ouest. Cette transmission de pouvoirs se fait selon le principe qui régit l'Acte de l'Amérique du Nord britannique et qui confère aux provinces le pouvoir de légiférer en matière d'enseignement, dans les limites de leur territoire. Selon le même principe et en vertu de la Loi des T. du N.-O., les mêmes pouvoirs ont été conférés au Conseil des T. du N.-O. Le Conseil n'ayant pas à son service de fonctionnaires à qui il pourrait confier la tâche d'organiser et d'administrer le système scolaire, et le gouvernement fédéral étant tenu de pourvoir à l'instruction des Indiens et des Esquimaux, obligation qu'il avait dûment contractée, le Conseil territorial a exercé son pouvoir de légiférer en adoptant une ordonnance régissant les écoles et en signant un accord avec le gouvernement fédéral. En vertu de cet accord, le gouvernement fédéral s'engage à pourvoir à l'instruction des jeunes Indiens et Esquimaux, aussi bien qu'à celle des enfants des autres groupes ethniques des Territoires. De son côté, l'Administration des Territoires s'engage à verser au gouvernement fédéral une somme qui équivaut au coût de l'instruction de tous les enfants qui ne sont ni de race indienne, ni de race esquimaude. En cela, le Conseil a endossé la responsabilité de pourvoir aux dépenses encourues en vue d'instruire les personnes au nom desquelles il a le droit de légiférer. Grâce à cette disposition, on évite le double emploi en matière d'enseignement et on a un système scolaire équitable, ethniquement parlant.

Ce genre d'organisation est des plus intéressants, et d'ailleurs unique en son genre au Canada; grâce à ce système, le Conseil, dont les pouvoirs et les prérogatives s'étendent à toute la superficie des Territoires, tout comme dans une province quelconque, a exercé son droit de légiférer en matière d'enseignement, en se faisant conférer le service d'instruction par un ministère du gouvernement fédéral. Vu les circonstances particulières, cette façon d'agir est non seulement commode, mais aussi pratique et qui plus est, économique.

Les dispositions de l'ordonnance régissant les écoles, adoptée par le Conseil, sont applicables à *tous* les élèves. L'ordonnance prévoit la décentralisation de l'administration scolaire, grâce à l'établissement de districts scolaires administrés par des commissions scolaires dont les membres sont élus au scrutin local. Jusqu'à present, seulement trois districts scolaires ont été organisés en vertu de cette disposition de l'ordonnance: au fur et à mesure que les localités se développeront et que l'économie se stabilisera, le régime d'imposition scolaire sera raffermi. L'administration et la direction du système scolaire pourront alors être organisées en districts comprenant plusieurs localités, et l'innovation pourra devenir la méthode courante d'administration scolaire. A cause de la distance qui sépare les localités, et aussi à cause des différentes façons de percevoir l'impôt scolaire d'une localité à l'autre, l'idée nouvelle d'organiser le système scolaire en districts, mise à profit avec tant de succès dans certaines régions du Canada, n'a pas encore été mise à l'essai dans les Territoires du Nord-Ouest.

Les écoles indépendantes de tout district scolaire sont établies, administrées et inspectées par l'administration fédérale, et portent le nom d'écoles fédérales. Par contre, les écoles organisées par districts sont établies et administrées par la commission de district intéressée, d'après les dispositions de l'ordonnance régissant les écoles. Toutes les écoles sont dirigées et inspectées par l'administration fédérale.

Des subventions scolaires accordées aux commissions scolaires locales sont versées en entier ou à moitié par le gouvernement territorial. Les subventions à l'immobilisation sont calculées à raison de 50 p. 100 du montant global des frais d'immobilisation. Les subventions scolaires ordinaires se calculent d'après le nombre d'élèves et leur montant est sujet à des rajustements périodiques.

L'administration du Nord canadien a son siège à Ottawa; elle s'appelle la Direction des régions septentrionales et fait évidemment partie du ministère du Nord canadien et des Ressources nationales. La Direction comprend entre autres la Division de l'éducation. Cette division remplit les mêmes fonctions, dans les Territoires du Nord-Ouest, que n'importe quel ministère de l'éducation dans une province du Canada. Les lignes de conduite de la Division de l'éducation lui sont imposées conjointement par le Conseil territorial et par le gouvernement fédéral. Par exemple, l'ordonnance régissant les écoles est un instrument du gouvernement territorial, tandis que l'utilisation proprement dite des écoles, au jour le jour, est une fonction qui ressort à l'administration fédérale.

La Division de l'éducation est subdivisée en cinq services distincts: les services scolaires, le service de coordination administrative, le service d'éducation des adultes, le service d'enseignement technique et professionnel, et le service des programmes d'études. Chaque service fournit le personnel qui s'occupe d'un domaine particulier. Chaque chef de service remet son travail au chef de la Division, lequel coordonne les travaux de tous les services, administre la Division, dirige, par l'entremise de bureaux régionaux, les services d'enseignement des territoires et conseille le gouvernement fédéral et l'administration territoriale en matière de politique scolaire.

Une grande partie du travail de chaque service se fait sur place. Presque tous les programmes d'études sont élaborés sur place. Des comités locaux ont été formés afin d'aider les spécialistes des programmes d'études de la Division lorsqu'il s'agit de modifier certains cours ou d'en construire de nouveaux.

En vue de décentraliser les services administratifs, deux bureaux territoriaux ont été organisés, l'un à Fort Smith dans le district du Mackenzie et l'autre à Ottawa, qui s'occupe de l'Arctique de l'Est. Le choix de la ville d'Ottawa comme siège de ce bureau a été dicté en grande partie par la disponibilité des lignes aériennes et des services de transport des voyageurs.

Les bureaux régionaux s'occupent du fonctionnement au jour le jour du système scolaire et des autres services d'enseignement dans les territoires, à peu près de la même façon que se pratique l'administration du système scolaire d'une province de l'ouest du Canada. De son côté, la Division de l'éducation, qui a son siège à Ottawa, fonctionne de la même façon qu'un ministère provincial de l'éducation, bien qu'avec certaines légères différences.

Les projets d'avenir semblent indiquer que le moment viendra où le district du Mackenzie, par exemple, sera organisé peut-être en territoire distinct, ou peut-être même en province. C'est en prévision de tels changements que l'administration a été décentralisée. Les fonctionnaires qui se trouvent actuellement sur place constituent le noyau des services administratifs territoriaux du système scolaire; c'est pourquoi l'autorité et les pouvoirs leur sont transmis graduellement. A l'heure actuelle, certaines fonctions sont plus faciles à décentraliser que d'autres. Pour chaque étape menant à l'établissement d'un territoire ou d'une province, il existe une juste mesure de décentralisation. On s'efforce d'effectuer la décentralisation selon un plan bien établi. La décentralisation est déjà assez avancée. L'embauchage et la surveillance des instituteurs, l'inspection des écoles et l'achat de fournitures scolaires se font sur place. Les bureaux régionaux sont aussi fort occupés à mettre au point des programmes d'études, à la formation sur place des instituteurs, à l'administration de l'enseignement professionnel, à la construction de nouveaux locaux scolaires et à la préparation de devis. De son côté, la Division de l'éducation s'occupe des lignes de conduite et de la planification en général, de la fourniture des services dans divers domaines, de l'élaboration de programmes d'études, du financement et de la réglementation.

BUTS ET OBJECTIFS DE L'EDUCATION

Dans ces vastes régions qui constituent le tiers de la superficie du Canada, où des éléments ethniques si différents vivent à des endroits si éloignés l'un de l'autre, où il n'est pas facile de voyager, où le grand nombre de langues et de dialectes nuit aux relations, et où les différences de culture se calculent en siècles, où l'évolution remplace inexorablement les modes de vie nordiques qui étaient restés immuables pendant des centaines d'années, dans tout cela, quels sont donc les buts et les objectifs de l'éducation?

Au fond, les objectifs de l'éducation sont les mêmes dans le Grand Nord que partout ailleurs dans le monde. Tous les systèmes d'éducation tendent à donner une expérience variée et à développer le genre de compréhension qui contribueront à former le caractère, à favoriser l'épanouissement de la faculté de penser de façon créatrice et du sens critique, à transmettre les connaissances et les aptitudes afin de rendre les gens sociables, instruits et productifs, utiles à eux-mêmes et à leurs concitoyens, tout cela grâce à un effort conscient et harmonieux, dans une ambiance riche en souvenirs de la culture régionale.

Cependant, la difficulté réelle n'est pas de fixer les buts de l'éducation; elle réside plutôt dans la façon d'arriver à ces buts et de trouver le meilleur moyen de les réaliser. Un corps enseignant compétent et expérimenté s'efforce de trouver les réponses à ces questions lourdes de sens; ces instituteurs consacrent toutes les ressources de leur intelligence, dévoués qu'ils sont aux gens parmi lesquels ils travaillent.

L'éducation générale des jeunes suit un cours particulier, selon les exigences locales. En vue d'aider les élèves qui se trouvent dans cette situation, on modifie les cours ou on les adapte, afin de les rendre mieux appropriés. Chaque instituteur enseigne en moyenne à 25 élèves et l'instruction se donne de façon à accélérer les progrès des élèves. On se sert beaucoup de moyens audio-visuels et on ne manque pas de se servir d'éléments de la culture locale afin d'aider les élèves à mieux s'instruire; les cours théoriques et les cours pratiques sont agencés de façon à faciliter l'accumulation des connaissances et l'acquisition de la dextérité.

Pour instruire les gens un peu plus âgés, on s'attache surtout à enseigner les côtés pratiques de l'éducation, parce que ces aspects se comprennent plus facilement et s'acceptent sans ambages. Pour ces gens-là, la formation à un métier rémunérateur est une entreprise difficile et de longue haleine, parce que leur apprentissage se fait dans une ambiance qui les bouleverse, et qu'ils sont forcés de s'habituer à un mode de vie nouveau et étrange pour eux.

Il est probablement encore trop tôt pour juger si les efforts accomplis seront couronnés de succès, dans cette entreprise grandiose de transformation.

Chapter 2

Accommodation for Learning and Living

NORTHERN CONDITIONS POSE UNIQUE PROBLEMS

Since 1955 when the Department of Northern Affairs and National Resources accepted the full responsibility for the entire northern school system, all new schools except mining company schools and those in municipal school districts have been built under the auspices of the Department of Northern Affairs and National Resources.

To achieve its objective of establishing a modern, integrated educational system in northern Canada by 1968, the Department faces as one of its most demanding tasks the provision of school buildings, living quarters for pupils and teaching staff and other ancillary buildings sufficient to meet the needs of the anticipated school population. The planning and construction of physical facilities for this sparse, heterogeneous and partially nomadic population pose unique and complex geographical, logistic and social problems which tax to the limit of their resources the professional and technical staff of the Education and Engineering Divisions of the Department. The Education Division has responsibility for deciding the type, placement and functional layout of the educational facilities, the Engineering Division for the architectural planning and construction of the plant.

Forecasting school population and deciding placement of schools and residences based on such forecasts have proven to be among the most difficult responsibilities of the Education Division. Northern experience related to population increase, progress through the grades, drop-out and retention rates is based on such a limited period of time as to be almost meaningless, and conditions in the North are so different from those in other parts of Canada that procedures commonly used within the provinces often lack validity when applied to such unique circumstances. For example, the birthrate of the Eskimo population is among the highest in the world. This, coupled with a diminishing mortality rate due to improving medical services and housing, has raised the rate of natural increase of Eskimos to 3.8% per year, a figure that is 50% above the Canadian average. Even so this rate may well increase even more in the next few years. Related to the increasing population and also to the departure from traditional means of livelihood, is a marked trend towards urbanization which has upset historic settlement patterns. Uncertainties of this nature would normally suggest a cautious approach, but the pressure of events will not allow for hesitant action. Decisions based on the best obtainable or predictable data, however imperfect these data may be, must be taken immediately. To act otherwise would be to delay unduly the establishment of an educational system for a section of our population which has too long been denied the educational opportunities taken for granted by other Canadians.

The extreme climatic conditions, rugged terrain and complete lack of overland transportation facilities in most parts of the North combine with the almost total absence of usable local building materials and skilled labour to make the task of school construction more formidable than the labours of Hercules. In the Eastern Arctic, the open season between break-up and freeze-up may last only from mid-July to late September or early October. This short open season with just one supply ship per year to most points of the Arctic coast places a premium on meticulous pre-planning, procurement of supplies, and co-ordination of delivery schedules. Equally important is the choice of durable building materials and equipment requiring a minimum of servicing after installation. Here an equipment failure not only involves flying in the servicing personnel and parts to the remote location by charter aircraft but causes serious inconvenience, discomfort or, in some cases, hazard to the lives of those dependent upon the continuous operation of such equipment. A handicap even greater than those already mentioned is the permafrost which renders traditional foundations impractical. This layer of frozen subsoil underlies, at depths varying from a few feet in some locations to several hundred feet in others, almost the whole sub-Arctic and Arctic area. To these already major obstacles may be added the absence of skilled construction labour in the field, which increases the cost of construction through the necessity of importing tradesmen at unavoidably expensive rates.

Local climatic conditions other than the extreme cold aggravate the problem of construction and initial maintenance. Winds of 100 miles per hour, not unusual in the Eastern Arctic, will shear off roofs, wrench buildings from their foundations, and drive pebbles with bullet-like force to shatter window-panes and tear off siding. Shortly after the school complex at Grise Fiord, possibly the northernmost school in the world, was constructed, its windows were smashed during a violent wind storm. As a temporary measure the teacher and his wife improvised window-panes from polyethylene bags. Meanwhile, arrangements made to have a new glass supply dropped by air came to naught when a bulldozer inadvertently ran over the box containing the glass intended for replacement. Although they had survived the shock of the parachute drop, the glass panes could not withstand this final crushing blow! By this time flying conditions ruled out the use of a plane large enough to bring in a second consignment of glass so a light plane dropped enough heavy transparent plastic sheeting to cover the windows several times over. Latest reports indicate that the teacher and his family enjoyed a fairly comfortable winter.

Careful design and engineering can eliminate or reduce some of the damage caused by Arctic conditions but the higher price of materials needed to withstand such treatment, the special insulation, and heavy-duty heating equipment compound the problem by adding to the already high cost of northern construction.

Operating costs as well are high, due to the absence of local supplies of even such common southern fuels as wood. Therefore, oil, at a cost of from $0.60 to over $1.00 a gallon, has become the standard fuel throughout the Arctic regions and even in most of the sub-Arctic. The only local sources of fuel supplies available, other than scrub trees in the sub-Arctic, are a seam of coal at Pond Inlet, in the Eastern Arctic, and the oil wells at Norman Wells, in the Mackenzie Valley. The oil from Norman Wells, refined locally by the Imperial Oil Company, supplies the Mackenzie Valley and Western Arctic coast. Bulk storage facilities now being installed in many locations are not only reducing the cost of fuel oil but improving the general appearance of northern communities by eliminating the unsightly dumps of oil-drums.

Unlike the locally developed school systems of the provinces, the school system of the Northwest Territories has been established by outside agencies without significant local participation. Except in Yellowknife, where a school district was set up in the year 1939, all schools were established by the Roman Catholic or Anglican churches, mining companies or the Federal Government. The sparse population created a need that could be met effectively in many cases only by bringing the children to the school rather than the school to the children. Even where settlements were large enough to establish small schools, children often attended irregularly because their parents withdrew them from school for hunting, trapping, fishing or sealing expeditions. Such irregular attendance by pupils, as well as their meagre language development, resulted in slow educational progress and an extremely high rate of age-grade retardation. Schools in such locations were also always in danger of abandonment due to depletion of game resources in the immediate area. These conditions gave rise to the need for establishing pupil residences adjacent to schools so that children could enjoy a continuous educational experience and could develop their English through practice out of school as well as during school hours.

PROVIDING SCHOOLS AND LIVING ACCOMMODATION

Although residential facilities must be built to meet the educational needs of children from isolated settlements, many communities are large enough to be served by local day schools which allow children to live at home. Approximately 25% of the school population require residential facilities. This figure includes pupils from isolated settlements as well as older pupils attending secondary and vocational schools. Where density of population is great enough and resources of the land provide a sound economic base for the community, local schools for the elementary grades are provided. There are, however, few communities large enough to support a full programme for secondary school pupils, and it is largely to meet the needs of this segment of the population that centrally-located secondary schools with adjacent pupil hostels have been established. The Sir John Franklin School and Akaitcho Hall at Yellowknife together provide a variety of secondary, academic and vocational school facilities and a residence for teenage children of the Mackenzie District. At present they serve an area larger than many Canadian provinces. The solution of local educational problems, therefore, takes a variety of forms, and each brings its own particular construction problems.

The Engineering Division of the Northern Administration Branch, after years of very painstaking research and experiment, has produced designs for small schools, hostels and houses constructed of prefabricated insulated plywood and aluminum panels. These panels are shipped during the open navigation season (or in some special cases are transported by air) to the most isolated school sites and there erected by unskilled and semi-skilled local labour with a minimum of direction. In larger communities where the prefabricated building does not meet the need, the architectural staff of the Department of Public Works or a private firm of architects produces plans and specifications. Tenders are then called and construction carried out.

The existence of permafrost in the north has prevented adoption of traditional methods of building foundations. A small building may be set on a gravel pad of sufficient thickness to act as an insulator and prevent the heat-loss from the building from melting the permafrost layer for, when permafrost melts, it forms a slurry of mud that will support nothing. Until quite recently, many otherwise good buildings had to be abandoned within a few years of construction because their foundations settled. Only in the case of small buildings, however, are gravel pads effective as foundations.

Standing on their multi-legged foundations, large buildings in the north resemble the villages of the Swiss lake-dwellers for they are usually supported on piles—wooden posts driven into the permafrost layer by the aid of steam jets. Steel I-beams or wooden timbers laid on the piles after they are frozen solidly in place form as rigid a support for the floor of the building as is possible on an ordinary type of foundation. During the building of the Townsite at Inuvik, 4474 piles were driven during the winter of 1959, much of the work taking place in temperatures of 35° below zero and during the period of 24 hours of darkness each day. One of the largest buildings with this type of foundation is the Sir Alexander Mackenzie School at Inuvik. This two-storey school of 33 rooms includes a home economics room, an industrial arts shop, a library and a large gymnasium-auditorium. The crawl space beneath this building between the grade level and the underside of the floor must be kept open at all times to allow free circulation of air. The importance of effective insulation, particularly in the floors and walls, to counteract temperatures as low as 65° below zero, is self-evident. At the time of writing, the Sir Alexander Mackenzie School has an enrolment of approximately 850 pupils in Grades 1 to 12. Of this number, approximately 500 children are quartered in the two adjacent pupil residences operated for the Department of Northern Affairs, one by the Anglican Church and one by the Roman Catholic Church. Like the school, the pupil residences have pile foundations. The cost of providing the school and pupil residences totalled over six million dollars.

Grise Fiord is at the other extreme of school size. This one-classroom school "complex" includes in addition to the classroom, a kitchen, a teacher's living quarters, a janitor's quarters, and a mechanical room for providing heat and electricity. The "complex" has been developed to meet northern conditions. By combining all facilities under one roof construction costs are reduced and provision of services simplified. The construction costs at Grise Fiord were $105,000.00. Average costs of building ordinary schools presently amount to approximately $55,000 per classroom (including necessary auxiliary rooms).

Where practicable, the schools and pupils' residences in the north have modern sanitation, running water, electricity and oil heating but in a few locations facilities are primitive even to the point where it is necessary to melt snow or ice for the water supply. Because permafrost does not permit burial of water, sewage and heating pipes in the ground, an above-ground insulated duct called a "utilidor" has been developed. This elongated box-like structure is carried on piles from the central heating plant and the source of water to the building being serviced and thence to the sewage disposal area. Heating pipes enclosed in the utilidor effectively prevent the freezing of sewage and water. Other than its expense of construction, the obstacle it places in the way of roadways, which have to pass over or under it, and the warmth of "cold" drinking water in the summer, the utilidor has provided a satisfactory solution for the problem of providing the north with central heating, water and sanitation services in an efficient manner.

Major schools and pupil residences are located at Inuvik, Fort McPherson, Fort Smith, Yellowknife and Fort Simpson in the Mackenzie District, and at Chesterfield Inlet in the Arctic District. A composite type secondary school with an attached pupil residence to accommodate pupils for secondary, academic and vocational education similar in purpose to the Sir John Franklin School at Yellowknife, is planned for the Eastern Arctic. Present plans envisage that this school will be completed early in the 1970's. In the meantime, temporary facilities to provide equivalent educational opportunities have been set up by the Department at Fort Churchill, Manitoba, in buildings vacated by the Armed Forces. The former Army barrack blocks, mess hall and a workshop have been converted to pupil residences, classrooms, home economics rooms and vocational education shops for 160 Eskimo children from the Northwest Territories and northern Quebec. This project commenced operation in September, 1964 and will be extended in 1965 to accommodate another 100 children. Similar facilities formerly used by the Department of Transport at Frobisher Bay will be converted by September

1966 to provide living and educational facilities for approximately 100 pupils.

From 1956 to 1962, a period of rapid expansion of the school system in the Northwest Territories, capital costs totalled $20,927,479 of which the Federal Government was responsible for $19,601,168 and the Territorial Government, $1,326,311. The largest capital expenditure occurred in the fiscal years 1957-58 and 1958-59 when more than $5.5 million per year was spent. To complete the construction needed to provide school and living accommodation for all the children in the Northwest Territories and Arctic Quebec, it will cost an estimated $25,000,000 during the next four years. In 1962-63, the 6260 pupils enrolled in the schools consisted of 2536 Eskimos, 1184 Indians and 2540 pupils of other ethnic origins. They were accommodated in approximately 264 regular classrooms in 60 schools ranging in size from one to 33 rooms. By 1968, an estimated 10,000 children will attend schools in the north.

STAFFING THE SCHOOLS

Lacking the resources and facilities for developing a supply of teachers from the local population, the Department of Northern Affairs and National Resources must rely on recruiting teaching staff from outside areas. Generally speaking, only teachers holding the equivalent of at least first-class teaching certificates in the provinces are eligible for employment. The large majority of teachers for northern schools come from the provinces of Canada, but considerable numbers from the United Kingdom, United States, and Commonwealth countries have also been employed.

The following imaginary "case history" will indicate in some measure how the teaching staff for the schools in the North is recruited.

> "While enjoying a second cup of coffee one Saturday in late January, Hope Northcot of Brockford, Ontario, picked up the morning newspaper. Force of habit led her to the teacher "want ads" even though she knew there was very little likelihood of any alluring prospects there until March 1. To her surprise she noticed a large advertisement headed "Teach in Canada's Northland". Of late she had felt the need of a change after her seven years of successful teaching and she had always wanted to travel to distant places and engage in a "missionary" type of activity. Recently, too, she had read newspaper accounts of life in northern Canada and her interest in the Northwest Territories had also been quickened

by a film on Eskimo life which she had shown to her class as a follow-up activity to a Social Studies lesson dealing with Arctic exploration. Soon after replying to the advertisement, she received from the Education Division of the Department of Northern Affairs and National Resources, an application form and a booklet entitled "Teach in Canada's Northland". It answered many of her questions and convinced her that she should apply for a position.

By early March she had received notice of acceptance for an interview by the District Superintendent of Schools who would be in Toronto, one of the interviewing stops on the annual cross-Canada teacher recruitment tour. If successful, she would be engaged for one of the 75 teaching positions expected to become vacant for the coming year. Her moving expenses would be paid from her place of residence to a school in the North and her furniture and unneeded personal effects would be stored at Government expense. On fulfilment of her contract, return transportation to her home would be paid. She learned too, that employment was on a 12-month basis. During the months usually considered as school vacation, she might be expected to teach summer school for children or adults or perform other related and community duties.

The Federal Government Superannuation, Group Surgical-Medical Insurance Plan and an annual three weeks' vacation period would apply to her. In addition, she would be granted six weeks' leave with pay to attend summer school once in each three-year period of service. Furnished and heated living accommodation provided by the Department at rents comparing very favourably with those charged in southern Canada would be available at her assigned post. In addition to receiving pay for 12 months instead of 10 months, she would receive an isolation allowance ranging from $480 to $2100 depending on her marital status and the degree of isolation in the location of the school for which she was selected. If assigned to a one-room school or if she held specialist qualifications, she would qualify for an additional $200 bonus. Although the basic salary for the 10-month teaching period provided no particular inducement for her to leave her comfortable southern surroundings, when the bonuses and allowances were added, she could consider the monetary return reasonably attractive.

In his interview, the Superintendent was particularly interested in Miss Northcot's personal qualities that would indicate her ability to adapt successfully to the unique conditions existing in the north. From his experience he knew that only those possessed of a stable emotional temperament could withstand the rigours of the long hard Arctic winter and the loneliness of an isolated settlement. He was looking for a teacher who could adapt her methods to the needs of children from a variety of cultures and socio-economic backgrounds. To be successful she must be optimistic, have a wealth of experience, higher than average teaching ability, and be willing to experiment with new methods."

Miss Northcot accepted a position and the following year found herself in the junior room of a two-room school on Baffin Island. She joined the ranks of some 300 teachers of widely varying origin, teacher training, and experience engaged to teach in Canada's northland. These teachers leave the comfortable security of a stable southern environment to face the risks, the discomfort and the unknown challenges of Canada's last educational frontier.

Recruiting for the northern schools poses all the customary problems of teacher selection as well as a few that are unusual because of the unique development of the northern educational system. Due to a prior agreement made with the Anglican Church and the Roman Catholic Church when the Department of Northern Affairs and National Resources accepted responsibility for operating all northern schools, teachers are assigned to classes so that the teacher's religion, Protestant or Roman Catholic, corresponds with that of the majority of pupils in her classroom, and a principal is appointed who has the same religious affiliation as that of the majority of pupils in his school. In communities where there is a close balance between Protestant and Roman Catholic families the movement of one family might tip the scales and cause a change in the teacher requirement. Fortunately, most communities have a clear majority of one or other of the two religious groups with the Eskimo in the Arctic tending to be largely Protestant while the Indians of the Mackenzie are mainly Roman Catholic. This distribution is upset at the tree-line where the two ethnic groups mingle, and in communities with large groups of children of other ethnic origins. Thus religion is an important element when applicants for teaching positions are being considered.

The teacher's sex and marital status, too, are most important factors, for the inaccessibility of some schools, the living accommodation available and the rugged nature of the life sometimes demand a male teacher rather than a female, a single teacher rather than a married one. Recently a superintendent was in need of a single male Roman Catholic teacher able to teach Grade 1 pupils; needless to say, there was a limited number of applicants for this particular position. While an extreme case, this type of problem is not infrequently met during teacher recruitment.

On the hopeful side, the increasing awareness among Canadians of their northern hinterland has been reflected in the large number of inquiries about teaching careers in the North. Many of these inquiries come from highly qualified, competent teachers whose main desire is to perform a service and broaden their experience. Length of tenure in teaching positions, although improving, is still below desired standards, and probably will remain so until the Territories produce their own supply of teachers from among the resident population. The day should not be too far off when the children of the Territories are taught by teachers who themselves were educated in the North. Then a large number of the teaching staff will be Eskimos and Indians.

FUNDING HIGHER EDUCATION

To help speed this day the Council of the Northwest Territories recently adopted a generous plan of assistance to students who desire careers requiring higher education. Northwest Territories' residents who have achieved university entrance receive grants sufficient to pay tuition fees and other costs of education as well as their transportation expenses to and from university. Loans to meet costs of board and lodging while attending university are made available free of interest during the period of university attendance. Upon successful completion of university the graduate can choose either to return to the Territories for employment and after three years have this loan cancelled, or accept employment elsewhere and repay the loan at a low rate of interest. This plan, applicable as well to professions other than teaching, should help to produce from the local population a supply of professional people to help fill the positions now staffed solely by people from outside the Territories.

Chapter 3

Vocational Education Now and in the Future

THE PROBLEM

The spotlight of publicity which focused on vocational education immediately after the advent of Sputnik I has not been dimmed in the intervening years. Indeed, public opinion is directed with even greater intensity on what it is hoped will be the catholicon of our educational dilemma, a comprehensive vocational education programme. This public concern has extended even to that part of Canada north of the 60th parallel, an area that comes under the jurisdiction of the Department of Northern Affairs and National Resources. The pressures resulting from the rapid advancement of technology that are felt all over the world are compounded by the recent changes in the ways of life of the residents in this vast land of 1,300,000 square miles. The northern peoples, traditionally hunters and trappers, have always led a nomadic existence. Their way of life is threatened with annihilation and indeed some say it has already been destroyed by the advance of civilization and the transition in the eyes of native northern residents to a new and foreign economy. It is the broad aim of vocational education to assist our northern residents to adjust to these new socio-economic patterns of life.

It has been adequately shown that the rapid trend towards automation in every aspect of industrial and commercial development is changing the types of employment available to coming generations. The normal annual increase in the total number of jobs provided by industry and commerce is now being markedly offset by a decrease in the number of skilled, semi-skilled and unskilled jobs available. It is important to note that the fastest growing occupations are those requiring the highest level of training at or near the technician level. By 1975 it is estimated that 76% of all employment in Canada will be at the technician or tradesman level. There is a very much slower rate of growth in the unskilled or semi-skilled categories. This trend is particularly true in the Northwest Territories where the familiar school drop-out problem is complicated by the fact that many older students have not had an opportunity to spend the amount of time in school that is normally required to give basic understanding of reading, writing and arithmetic. These over-age, under-grade students might be considered educational casualties of the old way of life. In their earlier years they spent time with their parents on a trapline living off a land where schools were not common. The family may have placed the child in school for one year or part of a year and then, not realizing the value of education for the future generation, moved him out on the tundra where he operated a trapline for the following year. Thus, in five years, a child may have completed only two years of formal schooling.

The Dominion Bureau of Statistics report of 1959-60 shows that approximately one-third of Canadian students registered in Grade 2 dropped out of the school system before reaching high school. Another third dropped out before reaching junior matriculation. Thus in a single stream academic programme, 67% of the students who entered Grade 2 dropped out before completing junior matriculation. In Canada's north, where until recently schools have not been available to some, statistics would show that an even smaller percentage of fully resident students have reached junior or senior matriculation. In the competitive manpower market the majority of northern students will continue to find difficulty in getting a job unless means other than straight academic education are used to correct the problem.

To reduce the dissipation of the large percentage of our human resources is the responsibility of all educators. It is believed that the provision of education for gainful employment is the primary and most comprehensive method of remedying this. In the north, vocational education is not considered an alternative to general and academic education but is supplementary and complementary to it. Further, it is considered that the best vocational education requires an initially high standard of general education.

It is the responsibility of the Education Division to prepare local residents to accept employment opportunities as they arise through the industrial development of northern Canada. The expansion of industry in recent years has been comparatively great, particularly in the fields of prospecting, mining, transportation and communication, heavy equipment operating, and office work. This is supplemented by the professional work of engineers, lawyers, doctors and teachers which is essential to the way of life today. Our northern citizens must be given the opportunity and must be prepared to make contributions to the development of Canada's future in all of these fields of employment.

In the event that industry does not continue to move north, the residents will find it increasingly difficult to earn a living. It is our responsibility to provide an education that will prepare them to move south if they so desire and to stand shoulder to shoulder with other Canadian workers in whatever vocation they select. Much guidance will continue to be necessary for these northern trainees.

In addition to the necessary technical skills, the development of a correct attitude is a major concern of vocational educators. It is imperative that an understanding of the meaning and value of time and work be imparted to the people of the north. Knowledge of the requirements of employers is often completely foreign to vocational trainees and due to the cultural background of some of these people, rather difficult to interpret.

Probably one of the prime examples of this difficulty is displayed in the demands made by modern employers respecting hours of work and timing in a day's or week's work. To one who, by tradition, has been his own employer in an environment where time is measured in seasons rather than in hours, the requirement of "punch clock" timing is difficult to understand. The fact that he must be at work at a given starting hour when nature tells him he is still tired or that he should eat at another given hour whether he is hungry or not, is strange to him. As a victim of his new environment he is finding that rapid changes and adjustments are necessary.

A concomitant problem in this area is the education of employers to the understanding of the cultural differences and strengths and weaknesses of our northern people. This problem, too, must be dealt with as an attempt is being made to solve in several ways the challenging problems of training our northern residents for gainful employment.

VOCATIONAL EDUCATION PROGRAMMES

Programmes of industrial arts, home economics, and homemaking are being offered in junior high school classes in centres such as Fort Smith, Hay River, Fort Simpson, Yellowknife, Inuvik and Fort McPherson in the Mackenzie District; and Rankin Inlet, Great Whale River, Baker Lake and Frobisher Bay in the Arctic District. Expansion of these facilities to new schools such as Tuktoyaktuk and Fort Chimo is already well beyond the drawing board stage.

The particular problems of curriculum development are dealt with elsewhere (see Chapter 4). Suffice it to say here that continued emphasis is being placed upon the development of courses and curricula designed to meet the needs of northern students and trainees. This work is progressing with the assistance of people who are knowledgeable in both the southern and northern requirements. The first of these courses in home economics and industrial arts have been developed for students at the Grades 7, 8 and 9 level. They are broadly based as well as exploratory in nature. An effort has been made to keep them abreast of current programming practices in the provinces and to assist in providing experience for junior high school students so they may understand better the world of work and the ultimate vocational selection open to them. In the industrial arts and home economics fields, broad general secondary school courses are offered in the larger schools with the more specific vocational electives offered in the Sir John Franklin School in Yellowknife.

The Sir John Franklin Academic-Vocational Secondary School reflects the tendency towards centralization of facilities in vocational subjects: this will have the desirable effect of allowing a wider choice of valuable options.

Further to the regular school programme, this school offers prevocational courses in heavy equipment operation, mechanics, mining, building construction, and homemaking. These are four-year courses for pupils spending eight to 10 months in the school annually, and the summer months in "on-the-job" training. Such courses are provided for that group of trainees who have not had the opportunity of extensive basic schooling. At present, these pupils come to the school with about Grade 6 level of achievement. They spend 50% of their time in the vocational shops and 50% on a special accelerated academic up-grading programme of studies. This programme of studies has as one of its aims preparation for the Alberta Grade 9 departmental examinations which are administered in the Mackenzie District. The curriculum is designed to prepare the student for employment, entrance to a trade school or apprenticeship, or for continuation into the secondary school courses in Grade 10.

New pupils arriving in Yellowknife are met at the plane and conducted to Akaitcho Hall, a 200-bed pupil residence which serves as home for the following 10 months. During the first year in the shops, the pupils are provided with a basic orientation course in which they explore the broad vocational fields of mechanics, heavy equipment operation, mining, building construction and homemaking. In the succeeding years, they specialize in a chosen field. At the completion of four years, the pupils will have come through a great adjustment period. Many will have worked on jobs and will continue in their chosen work. Others will have recognized a need for further training and will apply to go to more specialized schools in the south.

In addition to the formal vocational education offering specific occupational training outlined above, courses are offered throughout the Northwest Territories in many different fields. Examples of courses offered in the past are boat building, outboard motor repair, guiding, community health and sanitation, building construction, furniture repair, logging and sawmill operation, hunting, fishing and food processing, commercial training, art and handicrafts and fur garment manufacture.

The fur garment manufacturing courses make an interesting and typical example of how a modest training endeavour can develop into a small thriving industry. In 1960 an experienced furrier instructor from Edmonton was hired under contract to conduct a course in the sewing and manufacturing of garments from tanned furs from the Delta of the Mackenzie River. Although the Eskimo and Loucheux Indian had made garments and footwear from the skins and hides of local animals for years, their sewing was laboriously slow and their workmanship not very good. They did not know how to operate the special machines used in fur garment making, match furs, or create new and different designs. In fact, these were totally new experiences.

The Eskimo women learned the hand skills very quickly and progressed to the machines. New and unique designs were created and there was happiness on the faces of the women as they worked. At first, there was only a local demand for the limited supply of garments produced, but later this demand spread to neighbouring communities. Teachers, government administrators and personnel from many northern communities heard of these hand-crafted garments and the demand exceeded the supply. Now one can see the product of these handicrafts on the ski slopes of many fashionable resorts. Business has flourished and what started out as a modest training course became a thriving self-supporting industry. Through the assistance of the Industrial Division, a local co-operative has been established and the workers and the community benefit fully from the profits of this venture. The furrier has been hired on a full-time basis and some months ago moved to Tuktoyaktuk to develop a similar industry. When the demand becomes great enough, it is planned to establish a tannery which will employ local people to tan local furs.

Other fields of training that require more emphasis as the "bulge" of pupils moves up through the regular school grades are trade school training, technical school training, and other specialized school training. This bulge is probably unique to the Northwest Territories due to the establishment of new schools during the past 10 years in settlements where no schools were formerly in operation. This factor is resulting in a larger number of children arriving in the junior and senior secondary school grades. At the present time, there is not a sufficient number of pupils in this group to necessitate the building and equipping of large elaborate facilities. They are therefore sent to convenient schools in the provinces. When it is deemed that special instruction would give them an advantage in securing gainful employment, resident pupils of the Northwest Territories are offered training in trade and technical schools, commercial schools, schools of nursing, in fact in any approved and accredited school or training institution where courses are offered that cannot be provided in the north. The trainee must, of course, meet the entrance requirements of the institution he wishes to attend. A provision for universal aid to university students has also been made.

It is often impracticable to expend the huge sums of money necessary to offer certain relatively short specific courses inside the Territories. When the need for such courses is apparent, they are offered elsewhere with the co-operation of various government agencies or provincial training institutions. An example of this type of training that has been highly successful is the training of power plant operators at Barriefield, Ontario. This course was developed as a result of the need for operators and maintenance men in Eskimo communities where this new source of power has been introduced. In the past it had been difficult to attract and hold qualified men in northern communities in jobs of this type. Through the co-operation of the Royal Canadian Electrical and Mechanical Engineers at Barriefield, a special course was developed and offered to train selected Eskimos from various northern communities in the fundamentals of maintenance, trouble-shooting and minor repairs of the electric power operating units. A further similar course in heavy equipment operation is being offered near Chilliwack, British Columbia. Outboard motor repair courses have been offered in Ottawa, and special group terminal courses in various trades in provincial institutes. Co-operation between education authorities in the Northwest Territories and the provinces in the matter of training northern residents has been most encouraging.

Training on-the-job is a field of training that is producing gratifying results. To encourage employers to operate such training schemes, the Department of Northern Affairs has adopted a wage-sharing policy. By this means, employers are encouraged to give the required individual attention that is considered so necessary for initial employee morale and training. An example of this is the training of clerks, stenographers, typists and bookkeepers within the administrative offices of the government of the Northwest Territories. As another example, the Northern Canada Power Commission is helping in the training of power plant operators. In these training programmes, contracts are drawn up between the employer, trainee and government. Wages are shared on the basis of a sliding scale, which results in the major expenditure in the initial training being covered by government expenditure. As training progresses the employer pays a greater share. Training on-the-job contracts are generally less than one year in length and are supported by the government over the total period of time on a less than 50% basis. This concept of vocational training is gradually evolving into the new apprenticeship programme now being introduced.

A further service offered in the vocational education field is that of the selection of persons for education and training and the placement of persons after training. This service is conducted by a number of officers who carry out labour force surveys, job opportunity surveys, as well as selection and placement after completion of training. This work is expanding to meet the needs of young people of the north. Five Selection and Placement Officers are now giving guidance and direction in the five major administrative regions of the Northwest Territories.

During the year 1961-62, 314 residents of the Territories were trained vocationally. In 1962-63 this number increased to approximately 350 and this does not include pupils taking a rather extensive offering in industrial arts, home economics and commercial courses in schools across the north. The aim is to increase not only the number of trainees but the length of training. It is planned to formalize under an apprenticeship programme many of the present courses. This programme will provide for indentures, on-the-job training, block release for formal training, and certificates to encourage young people to reach a nationally recognized level of training. As the school population "bulge" reaches the secondary school, consideration will be given to expanding the vocational courses offered in the larger centres such as Yellowknife. New courses will be developed similar to the unique vocational mining course at the Sir John Franklin School. Trainees will be encouraged to consider these courses as pre-vocational in nature. If they have demonstrated the ability to profit from advanced training, they will be assisted in going to institutions outside the Territories. Courses will be oriented towards the particular needs of the students in the schools in the north and designed to link with southern institutes of higher learning, the proposed Northwest Territories Apprenticeship Programme, and the provincial apprenticeship and trades training programme. Senior secondary school industrial arts, home economics and commercial curricula are being developed to dovetail with courses in southern institutes of trades and technology or, where applicable, with the northern school situation.

An extensive programme of homemaking is planned to accommodate the girls in the age-grade retarded group. For the boys in this group, new shop courses will be developed which will be distinct from the industrial arts curriculum and will be aimed at the particular needs of these pupils.

Basic to and underlying the whole concept of vocational education in the north is the purposeful objective of providing a broad flexible education base. From this base trainees are in the comfortable position of being able to remain within a trade family and receive final training in a chosen specific field. Under such circumstances, if automation or lack of opportunity for employment faces a worker, he is in a position to negotiate a move into another phase of the same trade family.

The spotlight on vocational education in the Northwest Territories will not dim. The needs are obvious and immediate. As a larger number of young people require training and education and guidance in selecting a vocation, more emphasis will be placed in this field.

Chapter 4

The Curriculum for the Northern Schools

No drama ever written has been set on a more magnificent stage. The scenery of vast sketches of rivers, lakes, trees, gently rolling or flat tundra and illimitable reaches of snow, ice and mountains is in place. The actors are ready, so "On with the play!" But what script shall be used? What play shall be staged?

THE BACKGROUND

Other chapters in this book relate the story of education in the north. There is no need for repetition other than to state that to no area in Canada, and perhaps the world, has education been introduced so rapidly and dramatically. Other educational systems have had time in which to develop, manoeuvre, assess and evaluate and to accommodate and adapt. But the immensely important factor of time has been denied northern education. In a little more than a decade school buildings, large and small, have sprung up from the lower shores of the Hudson Bay to the near approaches of the North Pole and from the borders of Labrador to the boundary of the Yukon. Teachers willing to face the rigours of the north were found to teach in them and the pupils were there ready and waiting to enter them. But what kind of script, what kind of curriculum for these schools would be the most suitable? Could one play be used throughout the entire area, or were many plays required to be enacted on this vast stage at the same time? Were the needs and the capacities the same, or did the drama have to be tailored to fit the players? These and many other questions faced those who were and are responsible for finding the answers to this exciting challenge.

The Arctic was visited by explorers more than three hundred years ago and the Mackenzie District saw the first overland adventurers and explorers in the eighteenth century. Traders, fur trappers and prospectors came and went but some stayed to establish tiny settlements and, inevitably, to introduce some of the influences of

Western civilization. Wars and the entry of men, money and materials into the north further expedited the process.

Catholic missionaries entered the Mackenzie about 100 years ago and they were soon followed by the Anglicans. Small schools and, in a few places, residential schools were established with very little or no governmental help. Finally, after World War II, it was realized that the churches could not possibly give adequate support to the schools already established and that the Federal Government had a direct and very real responsibility to bring education to all of the people as rapidly as possible. The stage was set.

In 1952 it was decided as an interim measure that provincial curricula be adopted in the several areas as follows: as the Mackenzie District is immediately north of and adjacent to Alberta and all communication is routed through that province, then the curriculum for that province would be adopted for that area; as the Keewatin District similarly adjoins Manitoba the curriculum for that province be introduced; as the Federal Government had assumed responsibility for the education of the Eskimos and the few Indians on the Arctic shores of Quebec and as practically all of these natives were Anglican, the curriculum for the Protestant schools of Quebec be employed; and as most of the teachers for Baffin Island were recruited in Ontario, the curriculum for that province be recommended.

The foregoing was an excellent but a necessarily temporary solution to a problem of which the dimensions had not been measured. As recently as 1963, the Glassco Commission made a similar recommendation. In 1952, the solution was necessary: in 1963, the recommendation was somewhat naive. If all of the solutions have not been found in the interval of time between 1952 and 1963, at least the magnitude of the problem has been appreciated. A cursory look at the problem will unfold some of the difficulties faced by the Education Division.

THE PEOPLE

Two entirely different peoples are involved—the Indians and the Eskimos; to those are added the Métis and the white children. Many of the Indians have had a fairly long association with those whites who settled or travelled through the country and, in varying degrees, had learned their language and had acquired some degree of sophistication. Other Indians, living in remote settlements, follow the traditional occupations of hunting and trapping and have only casual contact with so-called civilization. Their knowledge and use of

English is limited or non-existent. Divided roughly into three groups they are a proud, shy people who are naturally suspicious of urgency as being undignified and unnecessary. They accept some of the accoutrements of modern gadgetry but cling, where possible, to traditional pursuits and customs in the forest areas of the north. The Eskimo and his manner of living are now well known to the Canadian reader. So many books have been written about him that it has been difficult for even the casual reader to have avoided acquiring some elementary knowledge of his bleak environment and his magnificent adaptation to it. It is possible, however, that he has been over-glamourized and that sentiment rather than reality has provided the criterion.

The Eskimo does not resent civilization. He welcomes it, but unhappily the diversity in the two cultures is so great that the adjustment is slow and painful. The economic base of his former nomadic life is disintegrating in many areas. The tendency to gather in settlements has brought a way of life to which he is unaccustomed and, in too many places, dependence on relief has replaced normal activity. Where the opportunity has been afforded, he has proved to be quickly adaptable but the provision of this opportunity is presenting the Federal Government with as many challenges and problems as that of education.

PROBLEMS . . . AND SOLUTIONS

What are a few of the problems faced by curriculum development in the Northwest Territories? The writer of this chapter hopes that the following tabulation does not do violence to good exposition but, in the space available, it appears to be the most direct way in which to set forth the situations faced by the programmer.

1. How can more knowledge be effectively gathered about the needs and interests of the Indian and the Eskimo child? How can such studies be made and how effectively can they be used?
2. Are the generally accepted aims of education applicable in this massive attempt to educate a whole yet diverse native population in a relatively short time?
3. How can curricula be developed that will be valid for all—to those who live eight to 10 months in a pupil residence and to those who live in the remote settlements close to the primitive lives of their parents?
4. How can a second language best be taught to children whose parents cannot speak or read English?

5. What meaning and reality can be brought to texts and experiences completely remote from the habits, the environment and mode of living of the pupils?

Programmes of studies are developed with various motivating purposes—to satisfy the immediate and future needs and interests of the pupils; to provide utility to daily living; to perpetuate those values that should be preserved and to cultivate the disciplines by the orderly and sequential organization of knowledge.

While these and other reasons create the need for a programme of studies, the sense of immediacy and urgency must exercise some degree of selectivity as to which of these objectives should take precedence. Furthermore, when an orderly selection has occurred the programme has to be translated into action. In other words, a curriculum that embodies those experiences and processes gives meaning, reality and vitality to learning situations. The creation of a programme implies organization, the implementation of a curriculum, and supervision.

While the adoption of the various provincial programmes was a necessary expedient, it was soon realized that they were ill-suited to the needs of the children and to the social, cultural and economic situations confronting the teachers. The development of unique programmes became an urgent and essential objective of the Education Division.

The creation and subsequent modification of any curriculum guide involves the active participation of those who implement it and their personal identification with the final product. This over-simplification of a highly intricate process is, nevertheless, practically axiomatic. Programmes of studies are no longer the product of some invisible, elevated oracle. They are the result of the study and work of numberless and usually unnamed teachers working under the leadership of officials who, in addition to other qualities, possess a knowledge of human relationships. In 1960 the Education Division adopted the policy of interpreting more closely the work of the curriculum specialists within the Division with principals and teachers in the field. Communication was established by the several members of the Curriculum Section during their visits to the field and curriculum committees were set up throughout the north in several subject areas.

Perhaps the most active of these committees has been the Social Studies Committee that worked in the Mackenzie District. A curriculum specialist from the Curriculum Section of the Education Division in Ottawa conducted the preliminary organization and field work in this field in the school year 1961-62. In the summer of 1962 the committee met in Yellowknife and under the guidance and assistance of the curriculum specialist and an experienced and capable resource person from Saskatchewan, produced an experimental Social Studies Programme for the Mackenzie District for Grades 1 to 6. This programme was introduced to the schools in September 1962. It was received enthusiastically. The teachers were invited to submit comments and criticisms to the committee for its evaluation meeting at Inuvik held during the Easter recess in 1963. While changes and modifications will inevitably be made in this programme, its introduction has been most successful. Here, at last, was a course of study created by the teachers for the teachers and children of this vast area. It dwells on those factors, conditions and qualities peculiar to the Mackenzie District yet does not neglect their relationships with the outside world, and the stream of history.

At present a similar approach is being made in developing a programme for the Arctic District. A workshop composed of interested teachers from that area was held in Ottawa in the summer of 1964 as this city was the most convenient centre for the purpose. While other chapters in this book will reveal the necessity for two programmes, it might be stated briefly here that there are vast differences between the Arctic and the Mackenzie Districts. Not only are the majority of the inhabitants of different races, but the environment, conditions of living, and the stages of development are so dissimilar that a programme designed for one District cannot reasonably be applied to the other. It should also be noted that encouragement is offered to principals and teachers to employ adaptations and modifications within each District as the circumstances warrant. Successful implementation in the Mackenzie augurs well for equal success in the Arctic.

No problem related to curriculum development presents a greater urgency or a greater challenge than that of the teaching of English as a second language. Until complete literacy of both parents and children is attained, progress towards the fulfilment of the most elementary and immediate aims will be slow and painful. The reader must keep in mind that the policy of bringing education to every child is of recent origin and that, despite the phenomenal growth of educational opportunity only 80% of the children are in school and of these, 80%, a very high proportion, enter school over-age and knowing little or no English. There is no royal road to a solution of this problem as any teacher of primitive peoples anywhere in the world will attest. Time is necessary to assess the magnitude of the task and to build a core of teachers whose interest and experience are appropriately oriented before an organized, sequential attack can be made. As an initial approach to this difficult situation, the well-known book "English Through Pictures" (Pocket Books Inc.) has been used. Although it is about the only book available, and has been basically helpful, it has not met with unqualified success because it was not specifically designed for this kind of application. Its greatest value has been in the direction and the basic approach it suggests. The stage is now set for a continuing organized attack, and the summer of 1963 saw a follow-up conference in the Mackenzie District planned with teachers on a basis similar to the one held in Ottawa in the summer of 1962. This conference was built on the work already undertaken at teacher workshops and at in-service training conferences which are a regular feature of northern educational service. Handbooks for the teachers and workbooks for the children which will have special and specific application to the north will be produced.

An interesting and profitable development in the teaching of English that indicates the part played by teachers has been the production of several little readers written and illustrated by the children under the guidance of their teachers. In some respects these are outgrowths of the experience charts created in many classrooms, but the untouched illustrations and the originality of the texts give a refreshing stimulation to the teaching of reading. A few of these readers are "Nicotye and Her Family", "Igloolik", "The Story of Papik an Eskimo Boy", "Here's Jack" and "My First Book".

Fortunately, realism has marked the establishment of the schools in terms of equipment and books. The per classroom allotment for the purchase of books in addition to basic textbooks is $150 each year. This ensures a good supply of reading material once the "break through" has been made. In the initial establishment of a classroom, $250 is provided for this purpose.

Work has also begun on the development of a distinctive science programme, which will be built through field work by interested teachers and directed by a curriculum specialist. To head this science programme, an experienced and well-qualified teacher was added as a curriculum specialist to the Curriculum Section of the Education Division. When school closed in June 1963, this specialist spent several months travelling about in the north surveying the situation, accumulating information on the flora and fauna, and recording his findings and studies on film. Since he was appointed, he has taken time to meet and talk with teachers. Following these surveys, preliminary guides will be issued to serve as a foundation for active participation of the several committees that are being formed. During the summer of 1964, the specialist spent six weeks travelling and studying in the lower reaches of the Mackenzie Valley to collect materials that will be useful in course construction. A brief summary of his work is given as an Appendix to this chapter.

The Health and Physical Education guide, which was developed in consultation with the Department of Health, is already in the hands of the teachers. This guide was produced in the Curriculum Section and will undergo full discussion and evaluation. Giving reality and meaning to the barest fundamentals in the avoidance of disease, the simplest elements of nutrition, and the elementary rules of sanitation present a very challenging and even intimate situation for teachers who are sometimes confronted with the necessity of bathing and even delousing some of their pupils While this situation is by no means universal, it can be realized that a sophisticated approach to the teaching of health is not always possible and certainly may not be effective.

While the development of art for art's sake is not stressed, the development of art as a vehicle for expression and communication is greatly emphasized. Young people who are unable to speak English can still express themselves and understand pictures. If the initial inhibitions are dissolved, a ready means of communication between teacher and pupil is soon established. Within a short time, they are exchanging English and native vocabularies. It is important that the teacher demonstrate as much tolerance for the native language as she expects for the English language. The large output of Eskimo art now found in the markets of the south is not necessarily an outpouring of an unusual native talent, but rather an eagerness for the native to express himself in whatever media are available. At the present time, the emphasis in the school is, therefore, not primarily on the discovery and development of talent (although this is important) but on the establishment of a relationship between teacher and pupil and pupil and curriculum.

Audio-visual education is no longer in the field of gadgetry but it is not yet firmly established everywhere as an essential segment of the teaching and learning process. If audio-visual education has become important in southern schools, it is essential in the north, for it is the most easily effective means of establishing communication, conveying information and carrying the child into another environment. In fact, all other facets of education become ancillary to sensory presentation.

With this in mind, all northern schools are well equipped with audio-visual material—projectors of both types, record players, tape recorders and sizeable resources of films, filmstrips and records. Each District Office has on its staff an official who is responsible for the purchase and distribution of audio-visual material and equipment. From these offices goes a constant stream of films, filmstrips, tapes, records, pictures and other material to the widely separated schools. All of this brings to the children of these remote areas stories in picture and sound of other parts of Canada and of the world. In what other way can a teacher convey to a northern Indian or Eskimo child with graphic reality, let us say, the idea of a snake? Perhaps the filmstrip that the child sees is a lesson in English with appropriate illustrations or the record he hears may be a lesson on English phonemes given by a recognized authority in the field. Whatever he hears or sees becomes an essential and integral part of his learning experiences.

While the District Offices are responsible for the purchase and distribution of materials, such materials are screened and approved by the audio-visual specialist in the Curriculum Section. This specialist also visits teachers, attends workshops and conferences, and makes several forays during the year to as many schools as possible, in order to give assistance and to "spread the gospel".

Direct reception of school broadcasts is now available to many schools in the southern Mackenzie District and a constant expansion of the communication system is bringing an increasing number of schools into its orbit. Where direct reception of the broadcasts is not possible, the schools may obtain tapes of such broadcasts and considerable numbers of such tapes are being distributed constantly. The entire north is still free of both the baleful and beneficial influences of television but kinescopes of selected programmes are available.

Curriculum development and in-service education are today practically synonymous. Unhappily, in an area where curriculum development is so overwhelmingly important, an in-service programme is difficult to organize and maintain. It is not possible for a superintendent in these regions to pick up a telephone and arrange for a meeting at four o'clock or for next week or even for next month. Although distance, thanks to the airplane, is not the factor that it once was, time and the cost of travel remain formidable obstacles to frequent gatherings. Schedule flights may be inconvenient and uncertain. Charter flights are expensive and sometimes uncertain.

Despite these difficulties, everything within reason is beng done to promote in-service activities. Before school starts in September, newly appointed teachers, and some experienced ones also, gather for a two-week orientation course where they are briefed as to northern teaching conditions and administrative procedures by various officials of the Education Division and other Divisions of the Department of Northern Affairs. During the year committees active within each school meet frequently and regularly, sometimes by themselves and sometimes with curriculum specialists or superintendents. It is customary to hold winter and spring conferences at such places as Yellowknife, Inuvik, Frobisher Bay, Great Whale River, Fort Chimo and Churchill. Teachers are flown in to these conferences from great distances and at considerable expense. There they relate their various experiences, meet old and new friends and speak with experts on various subject fields. These conferences do much to dispel the feeling of isolation and to stimulate the teachers to renewed efforts when they return to the distant posts. Workshops are held in the summer months for the purpose of programming a course of study in a particular subject. Some of these accomplishments and plans have already been related.

In each District Office there are those who have the title of "teacher-at-large" and "principal-at-large". These people frequently act as substitutes in cases of prolonged absences but when they are not acting in this capacity, they are actively engaged as consultants giving direction and assistance to teachers and principals wherever required.

The activities of the specialist in the Curriculum Section have already been related. As curriculum development is closely associated with supervision, much of their work consists of classroom visits and providing leadership at professional gatherings. Perhaps their main function is to promote the holding of professional gatherings by involving the teachers in the many activities associated with curriculum development.

The story of curriculum development would not be complete without mention of the creation of an Eskimo orthography. This project is somewhat comparable with that developed in Greenland some years ago. Plans are being set forth to introduce to the adults and into the schools, by means of pilot projects, the recently developed new standard Eskimo orthography. The experience gained from these projects will help to lay down a pattern of approach. Present indications are that despite all the difficulties confronting this project much good may come of it. There is no doubt that it will be well received by some Eskimos, but whether it can or will have universal application is problematical. Whether it will ever be developed beyond a very elementary level is also doubtful. The present use of syllabics, a type of shorthand invented by the early missionaries, is widespread throughout the Arctic and, while not formally taught, many Eskimos appear to learn it in some way or other. Whether the new orthography will be equally successful rests with the future.

The reader will have noted that little has been said of secondary education or the development of secondary curriculum and has perhaps inferred that the Curriculum Section is not involved. The number of pupils in the secondary grades is, as yet, relatively small. Of the 6260 pupils, 80% are still in Grades 1 to 6, 12% are in Grades 7 to 9, and 7% are in Grades 10 to 12. Most of those in Grades 10 to 12 are in Yellowknife, where an extensive vocational programme is in being. At the present time programmes of the respective provinces are prescribed and closely followed, and there is no pressing need to create distinctive curricula. In the summer of 1961, the Curriculum Section and a committee of teachers were actively engaged in the creation of an accelerated programme for those students who, due to a very late start in school, were very much over age in their grades. This programme, as developed, is a somewhat condensed and concentrated version of the content of Grades 6 to 9.

It does appear that as the schools are increasingly successful in retaining more students in the upper grades, it may be necessary to create a distinctive secondary programme. Necessary modifications, application and adaptation will, of course, be made and applied as required. At present, matriculation examinations are the same as those in Alberta and, by an agreement with Alberta, they are marked by that Province.

A special study of the intellectual capacities of the native children in the upper Mackenzie was carried out in 1961-62. Because the usually employed tools for measurement are of no validity or are inadequate for children who do not have a command of English, the study confined itself to the use of items similar to the so-called culture-free items in non-verbal tests. This study and the subsequent norming of the results lends some hope to future development in this field. Further studies are planned. The limited use of "Raven's Progressive Matrices" tests and the "Goodenough Draw-a-Man" tests (both non-cultural) indicate that the learning capacity as measured by such tests, is fully equal, if not superior, to the norms established for the tests.

Standard batteries and other tests are freely used by the District Offices but the reliability of the results is, of course, closely related to the ability of the children to read and comprehend English. Care is therefore taken in the use and in the interpretation of test results. Much more work of this kind could be done and the Division plans to add to its staff a specialist competent in this field.

The space allowed by one short chapter on curriculum development prevents the telling of the full story of the activities of the Curriculum Section and of the adaptations necessary to bring an effective education to the north. Many problems are still unsolved, many knots remain to be unravelled, but where else has such amazing progress been made in such a short time, and where else are to be found such fascinating challenges?

Appendix

NORTHERN SCIENCE CURRICULUM
SUMMARY OF FIELD WORK PROGRAMME

Planning has been made for a series of summer field programmes designed to provide background information and materials necessary for the development of a meaningful science programme for northern schools. In order to make it possible to obtain adequate coverage of the major biotic areas in the Territories the initial planning for the summer field programmes was as follows:

1963—Low Arctic habitat—Southampton Island

1964—Tree line and tundra edge habitat—Anderson River

1965—High Arctic habitat—to be determined.

1966—Arctic Quebec highland habitat—to be determined.

The following excerpts are taken from the report of the 1964 summer field programme in the Anderson River area of the Mackenzie District. It is hoped that this will provide some insight into the nature of the field work and its value in the development of a science curriculum valid to the north.

ANDERSON RIVER SUMMER FIELD PROGRAMME

Report by RICHARD FYFE,
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The 1964 field programme was carried on in the Anderson River area of the Mackenzie District from May 15 to July 8. An additional seven days were then spent in the immediate vicinity of Inuvik working along the Mackenzie River and in the nearby barrens.

The three primary objectives of this programme were:

1. To gain information and background necessary for the development of a science programme valid for northern schools.
2. To obtain accurate information and materials for the preparation of instructional aids for science programmes related to the northern environment.
3. To further acquaint myself with the people, their culture, activities and needs, as part of the background necessary for the development of a meaningful science programme.

The Anderson River area was chosen for the field work because it provided both the boreal forest in the river valley as well as an adjacent area of treeless tundra. The river is well known as a rich fur-producing area and it was expected that it would also yield an abundance of other species common to the two habitats.

The initial programme was planned so that I would spend a period of two months in the field with a guide. During this period, it was planned to work the main stream of the river twice in order to obtain as complete a sequential picture as possible of the ecological events from break-up through to mid-July.

The following abbreviated excerpts are from the diary from May 15 to July 15, which covers the period spent in the field. No attempt is made to give detailed observations; rather it is intended only to indicate in a general way the daily progress of the field work.

May 15—Aircraft to the Anderson Forks. At the Forks the river was still frozen and the ground covered by two to three feet of snow.

May 16—Set up camp. Weather warm, snow very sticky, walking difficult even with snowshoes. Ravens plentiful and the first flocks of Canada and White Fronted Geese seen. Golden Eagles observed circling over camp. Ravens put on an unbelievable aerial display.

May 17—Remained at the Forks, temperature about freezing point. Flocks of Sandhill Cranes and Swans heading Northwest. Walking virtually impossible. That evening our camp was invaded by Red-Backed Voles (a variety of mice).

May 18—Temperature warmed to 40°. In the morning dozens of robins moved into our area from the south. Walked roughly three miles. Returned to camp and found a bird which I identified as an Eskimo Curlew (this species had been thought to be extinct until recent years).

May 23—Extremely cold. Everything froze overnight and remained frozen the following day. Carnivorous ground squirrels were eating the mice out of our traps.

May 24—Walked the ridge near camp and observed several Hawk Owls, Pine Grosbeaks and the fresh trail of a bull moose. Rusty Blackbird very common.

May 25—Two hundred Swans congregated at the Forks. Their calling could be heard for several miles throughout the day.

May 26—The first day of 24 hours of sunlight. Sik Sik (squirrels) seen eating berries on the warm hillside. Observed first Loons and Yellow Legs and about 6.00 p.m. recorded first movement of ice in the Anderson.

May 27—First Muskrats swimming close to the bank. Two were shot. The guide kept the hides and we ate the meat for supper. Many flocks of ducks arrived and remained on the small pools dotting the river.

June 13—Temperature 80°. Photographed Tree Sparrows, White-Crowned Sparrows and Jaegers. Visited a small island with 20 nesting pairs of Short Billed Gulls.

June 14—Moved camp 20 miles down river. Trees average 20-35 feet in height. Located two gyrfalcon's nests. En route we passed many Swans and Ducks congregating prior to the moult.

June 15—Fresh caribou tracks by our tent. Located a Robin's nest (we were approximately 60 miles from the Arctic Ocean).

June 16—Caribou becoming more plentiful. Passed one large grizzly and more than 200 Swans. Golden Eagles very common searching the hillsides for squirrels. Hills showing outcrops of sulphur and coloured ashes from previous burning.

June 17—Walked into the heavy timber and surprised a lynx. Later located five caribou feeding one mile back from the river. Also located several Whimbrel nests.

June 18—Clear sunny day spent photographing Whimbrel, Sparrows and Yellow Warblers. Fresh grizzly tracks opposite our tent.

June 24—Overcast with light rain which turned to snow. By midnight we were in a very severe blizzard with visibility less than 100 yards.

June 25—Snow and blowing snow by evening covered the ground. Drifts up to two feet deep were numerous. Unable to get our supplies so we ate fish.

June 26—Rain, snow and wind. Checked several nests of small birds and found all nests deserted, with the young birds frozen. Later we found that the storm had killed most nestlings in the area.

June 29—Overcast with light rain. Eighty logs cut, trimmed and made into a raft. Decided to leave next morning.

June 30—Broke camp. Essential items kept in the boat. Everything else on the raft. En route we encountered several Eagles' and Falcons' nests. Also one grizzly bear with two cubs. Came to extensive rapids, pulled the raft ashore and portaged our supplies one and a half miles.

July 1 —Cut the raft loose to its fate and although badly battered, we were able to pick it up again further down river.

July 2 —Rapids behind us. Now the problem was getting by 15 miles of sandbars. Late in the afternoon we were stranded in heavy rain adjacent to a steep bank. Forced to off-load our supplies and slept in the rain at a 40° angle on the hillside.

July 13 —On to the barrens near Inuvik. This area proved to be very similar to the Eastern Arctic, with most of the species of plants and animals being identical to those farther east or north.

July 14 —Temperature 84°. Flew to Campbell Lake and worked the rocky outcrops. Mosquitoes terrible. A highlight was the location of a large field of orchids beneath one of the cliffs.

July 15 —Pressed the orchids. Arrangements made for all shipping.

July 16 —Departed for Edmonton.

Results of Programme

Throughout the summer detailed records were kept of all observations to serve as future reference material in adapting the curriculum to the local situation. Several hundred photographs were taken of all activities and I believe enough material was obtained to produce slide sets or filmstrips showing the major plant, animal and bird forms of the Western Arctic.

Personal Observations and Conclusions

In sharp contrast to the findings and observations during the previous summer on Southampton Island, where most of the species were Arctic forms, it was found that the vast majority of the plants, animals and birds of the Anderson River area are identical to those of the northern Prairie Provinces and undoubtedly to those of the Yukon Territory as well. This should greatly simplify the development of curriculum materials for the Mackenzie area and this similarity warrants very close working relationships with the curriculum authorities in the three western provinces and a close working relationship with those who are dealing with the programmes for the Indians and Métis in the northern schools of these provinces.

I feel that there is little doubt that the experience resulting from this summer's field programme has contributed in a very large measure to the background necessary for me to work with teachers in the development of a curriculum designed to meet the needs of northern schools. I was not full prepared for the very different nature of the western Arctic and this will definitely influence my thinking when working with the teachers in the development of the curriculum for the Mackenzie when the actual Science curriculum committees begin work in 1965.

In conclusion, I feel that the field programmes are absolutely essential for the development of the northern science curriculum. The curriculum must be developed so that it is meaningful to the northern situation and it is essential that we have curriculum materials which apply to the local environment of the children, particularly at the lower grade levels.

Chapter 5

Adult Education

RAPID IMPACT OF NEW CULTURE

Social change is, without doubt, moving at a challenging pace in northern Canada. The majority of adult Eskimos, Indians and Métis are without the schooling that gives other Canadian citizens a normal background to meet daily situations, to make decisions based on schooled experience and judgment, and to adapt or adjust to their swiftly changing environment.

There are many reasons why the adults lack schooling. As long as their lives centred around trapping, hunting and fishing and they could obtain materials in return for their catch they were satisfied. When the churches introduced schools as far back as 1867 the people were reluctant to send their children. It is no reflection on the mission schools that the children on returning home soon forgot what they had learned: they found little opportunity to use their newly acquired book learning and little encouragement from their parents. There was a dearth of printed material, so there was no incentive to go on reading and learning.

It is only now, with the impact of change, that the people in both northern and southern Canada are facing up to the reality of the north. Today the adults are straddling two cultures—one very primitive one, the other modern. There are six main influences which are bringing about this rapid change in the North. These are:

—the school with its all-pervading influence on the home, the family and the community

—improved transportation

—the influx of people from southern Canada

—employment opportunities and wage economy

—the growth of settlements

—the influence of services, such as health services, family allowances and the like.

THE "IN BETWEENS"

The results of this lack of education in the adult population are showing rapidly. The new house should not be treated in the same manner as the igloo or tent. Permanent housing in community groups means taking on the responsibility of group citizenship. Permanent jobs mean a money economy requiring considered spending and saving; also implied are regular hours of work and regular hours of leisure time.

Seventy-five percent of the compulsory school-age children are now in the classroom. This also is having an effect on the adult population. A gap is rapidly appearing between the child and his parents, and the parent is becoming dependent upon the child for interpretive and translation services. The parents cannot always comprehend what schooling is doing for and to their child, so to avoid grave conflict within the home and community, special educational opportunities need to be provided for adults.

The majority of adults do not feel that schooling is for them. There is no real motivation to attend classes or courses and this approach may be unsuited to many of them. They are concerned, however, about many things and these things may be the starting points for them in their particular educational programme.

APPLYING ADULT EDUCATION TO NORTHERN CANADA

The task in hand is to develop an adult education programme based on the needs of the people. This is no small task since each community, and even groups within the community, are at different stages in the acculturation process.

The modern concept of adult education concerns itself with the total man in his total environmental setting—physical, cultural, intellectual, aesthetic, emotional, social, economic, civic, political, legal, moral and spiritual. No longer is it enough to isolate segments of the whole by merely attempting to remedy deficiencies or teach basic skills. The stark truth that learning should be a life-long process is deep-rooted and is accentuated by the accelerating pace of social change.

Adult education is concerned with all segments of society, those that conform and those that do not: it should follow adults from the school leaving age to old age. To avoid confusion it is essential that the principal, urgent and impelling needs of the individual and of the community be assessed systematically and those services set up that will meet the special needs in each case. This is particularly important in northern Canada, where the permanent residents are largely Eskimo, Indian, and Métis.

Commencing an adult education programme in the Northwest Territories has more similarity to those in the developing countries than to those in southern Canada: in the north it is necessary to provide fundamental or functional education (but at a different level and pace than schooling for children) and in addition, to prepare the people for the changes that are taking place so rapidly.

To make an impact, the adult education programme should eventually reach every permanent and semi-permanent community. As the programme proceeds, evaluations should be constantly made and modifications introduced as required. Such a programme requires staff at four levels: the community, the region, the district, and in the Ottawa Headquarters. The main area will be at the community level where the people who need the programme are living. At the regional level should be placed staff who can be shared by several communities. At the district level a very small co-ordinating and supervisory staff is required, while at Ottawa Divisional staff will be needed to carry such functions as the preparation of materials at various language levels to meet different needs.

In cases where the group comes together for social experience, instruction may be formal or informal. Opportunities should be used to make every experience educationally meaningful. Experience may consist of learning to read and write new words in connection with a square dance activity: it may be the choosing of a chairman for a committee, and the manner of his functioning as a leader.

THE PRESENT AND THE FUTURE

The 1961 census indicates that three-fifths of the people in the Northwest Territories are above the school leaving age of 16 years. This means that there are approximately 15,000 adults who could participate in adult education programmes. In a southern Canadian community adult education means providing educational opportunities that would allow adults to carry on from where they left off in their schooling. In northern Canada adult education has an additional task—that of providing functional or fundamental education to take the place of the formal schooling that the majority of the Indian, Métis and Eskimo adults have never had.

While schooling for children was the first educational concern in the Territories, the provision of an adult education programme was part of the longer range policy. Late in 1960 the beginning of an adult education service was established in the Education Division of the Northern Administration Branch of the Department of Northern Affairs and National Resources. A very modest extension of this service was provided late in 1963. Until supporting staff is made available, programming is being based on local interest and the availability of volunteers to serve as instructors. Provision has been made for employing a limited number of local instructors for short-time assignments on a contract basis. Unfortunately there are not enough people available with qualifications or time to give to adult education projects. Many schoolteachers teach adult classes in the evening or at weekends.

It is encouraging to see a steady growth in the amount of programming that is being arranged for adults and the voluntary leadership being given. The school acts as the co-ordinating agency in adult education programming and reporting; the overall task of instruction is shared by numerous individuals and by members of governmental and voluntary agencies.

Reports on Adult Education were received from 53 of the 61 schools in the Territories and Arctic Quebec for the fiscal year 1962-63. In the main, only programmes relating in some way to the school either through classes or use of school facilities were reported. In 29 settlements formal classes were held with over 1000 persons registered in 100 groups. The length of a course varied from 12 to 24 classes. The courses were timed for periods between hunting and trapping seasons.

Classes in basic subjects such as reading, writing, arithmetic and basic English were reported by 19 centres. Other courses were first aid, health, food and cooking, sewing, knitting, crafts, woodwork, typing, French, Latin, Eskimo, history, woodwork, book-keeping, electronics, leadership and citizenship.

Informal types of programmes were reported by 38 school principals. Educational films were shown in many communities on a regular basis. The attendance varied with the size of the settlement with the overall figure each week being approximately 2500 persons. Meetings were arranged when topics of current interest required action or a decision. Exhibitions were held chiefly to acquaint parents with the daily activities of the school. Some places reported the opening of school libraries to adults.

The school frequently serves as the community centre for social and recreational programmes. Even though one of the major objectives is to have everyone share in the responsibilities for such programmes, the major share falls on the teachers. Social and recreational programmes are frequently organized and serve to broaden social intercourse among all participants: these often lead to formal classes based on expressed needs and interests. Correspondence courses are arranged for any adult who has the necessary background to be able to study on his own.

The reports indicate that the majority of these attending adult classes were in the 21 to 40 year age bracket and unless classes were especially organized for the 16 to 20 year age group they did not attend. There were more women than men attending classes in the Mackenzie District. In the Arctic District it varied with the subject matter offered.

The texts commonly used in southern Canada or in the United States to teach English as a second language have not completely met the requirements of the northern people. Experimental use of such materials indicates that with these people interest diminishes after a few lessons because much of the material is beyond the first-hand experience of the Eskimos and Indians. To meet this shortage of suitable materials a beginning was made in 1963 on the preparation of special courses for adult classes. The first to be prepared was a 10-lesson course on the "Northwest Territories of Canada". A kit of teaching aids was assembled to minimize the amount of teacher-time required for lesson preparation (adult classes are usually conducted by teachers over and above their day's work with the children). The kit contains maps, filmstrips, pictures and a workbook. The workbook is made up of simple statements using a controlled vocabulary; space is provided for copying vernacular translation. Exercises in lettering are included and consist of three or four new words for each lesson. The lesson outline suggests various techniques to change the pace approximately every 20 minutes: this is calculated to ease the tensions that build up when adults are striving to learn.

A pilot project was conducted at Baker Lake to test the materials, methods and workbook. Two groups were organized, one having 19 Eskimo men and the other 11 Eskimo women. Of the 30 participants, only six had ever attended school and only one had reached a Grade 4 level. Their ages ranged from out-of-school young adults of 16 years to 59 years. The response was excellent to both the subject matter and the methods. Excluding the Bible, the workbook was the only book many had ever owned. The material was read and re-read in class and at home. By the end of the course the workbooks were well thumbed. In addition to the regular exercises accompanying each lesson, homework was requested and the parents thus involved felt they were on an equal footing with their children. One of the accomplishments that gave the greatest satisfaction was when each learned to write his own name and address. The goals set were reached, and achievement was good.

The future of adult education in the Territories is dependent upon many factors, chief among these being the recognition of the unique role that adult education can play in the development of northern Canada. It can serve those who have had little or no schooling or those who, after leaving school wish to continue learning. It can serve those going north from southern Canada who wish to compensate a little for some of the activity that they leave behind.

It means

—providing sufficient funds for staff, classes and special projects,

—conducting surveys to assess needs,

—finding the best ways to assist Indians, Métis and Eskimos to adapt to changing conditions,

—aiding people to become successful and productive workers at new tasks,

—training a staff of educators in the philosophy of adult education, the psychology of adult learning and in methods used in adult education,

—conducting pilot projects such as the rapid upgrading of young adult Eskimos and Indians of average and above average ability in order that they may be educationally competent to compete for responsible positions with other Canadians,

—preparing manuals, workbooks and the like at various language levels for the continuous education of those adults who never attended school,

—training for leadership and citizenship,

—accepting the principle that all adults regardless of age or previous experience must continue learning if they are to be worthy and contributing members of society,

—and above all it means recognition of native cultures and finding how these may be retained and interwoven into the new ways of living.

Chapter 6

History of Education in the Northwest Territories

The history of education in northern Canada falls logically into three eras:

1. missions,
2. transition,
3. federal and territorial administration.

THE MISSION ERA

The early history of education in many countries has followed a uniform pattern. In almost every country formal schools were first conducted by religious groups. The Northwest Territories is no exception.

Not long after the Hudson's Bay Company established fur trading posts throughout vast areas of northern Canada, missionaries of the Anglican and Roman Catholic Churches came to the north for the purpose of Christianizing the Eskimo and Indians. They established missions close to the Hudson's Bay Company trading posts. Little churches were built with residences for the mission staff. To begin with, small groups of Eskimos and Indians were attracted to these mission centres.

To do their work more efficiently the missionaries saw that they must educate the people, so it was not long, therefore, before they brought small groups of Indian and Eskimo children to residential schools where daily instruction was given by the clergy. Though school facilities were often inadequate by our standards, much was accomplished with very limited funds through personal devotion and sacrifice. In those days few dreamed that some day the north would be developed even to its present extent. In fact, few white men had even dared cross its boundaries. It seemed obvious at that time that education should equip the people for a life of hunting and trapping in their own realm.

These first schools were started by both the Roman Catholic and Anglican missionaries well before the turn of the century. In 1867, the Roman Catholic Church established a residential school at Fort

Providence on the Mackenzie River and at about the same time another at Fort Resolution on Great Slave Lake. The Eskimo Gospel Mission also established one at Maguse River in the District of Keewatin as recently as 1948. It is interesting to note from the records that the first government grant paid to the Roman Catholic residential school at Fort Providence was at the rate of three cents per pupil per day.

Shortly after the Roman Catholic Church began establishing schools in the north, the Anglican Church commenced a similar programme. In 1894, Anglicans opened a residential school at Hay River on Great Slave Lake. In 1927 the first residential school entirely for Eskimos was established by the Anglican Mission at Shingle Point on the Arctic coast. This school remained open until 1933 when a new school was built at Aklavik to replace it and the one operating at Hay River. From then until after the Second World War, other than by providing small grants, the federal government left the education of the people in northern Canada to the missions. Besides the residential schools the latter began operating small day schools in such settlements as Fort Simpson, Fort Smith and Hay River.

THE ERA OF TRANSITION

As more people ventured northward they became interested in providing schools for their own as well as for the Indian and Eskimo children. In 1939, after the discovery of gold at Yellowknife, a small school was started in that settlement. It was a one-classroom school housed in a rented log cabin and at the outset had an enrolment of 18 pupils. By 1949 this school had expanded into a modern nine-classroom elementary secondary school, and was the only one in the Northwest Territories maintained by local taxation with the assistance of grants from the federal and territorial governments. It is now a 20-room elementary school and is being expanded in 1965 to 25 rooms. The secondary school pupils are educated in a new composite academic-prevocational school established and operated by the federal government. In 1953, the Roman Catholic minority established the Separate School District No. 2 in Yellowknife for elementary school children of the Roman Catholic faith. More recently, in a third School District, the Hay River Separate School District No. 3, was organized and a separate school for Roman Catholic pupils was opened at Hay River.

The first so-called public school at Fort Smith was opened in 1937. A group of interested citizens decided they wanted a school of their own. They built a classroom and operated a school for several years, paying the costs involved, including the teacher's salary. This school closed when, in 1949, the new federal school was constructed.

Before 1940 no-one thought much about who should be responsible for education in the far north. Officially it rested jointly with the territorial and federal governments; in reality the acceptance of full responsibility was a gradual process. The Northwest Territories Act, the School Ordinance and Regulations thereunder, and the Indian Act and Regulations form the legal basis for educational responsibility. Order-in-Council P.C. 2993 dated July 18, 1946 designated education as a subject within the legislative authority of the Commissioner of the Northwest Territories in Council and authorized him to make ordinances relating thereto as provided in Section 12 of Chapter 102 of the Revised Statutes of Canada (1927) and Section 16 of Chapter 195 of the Revised Statutes of Canada dated 1952. As a result, the education of white children and those of mixed blood who held white status became the responsibility of the territorial government, with the education of Indian and Eskimo children being the responsibility of the federal government.

About the time of the Second World War the government realized that their charges could not be left in isolation. It was recognized that more emphasis had to be placed on formal education; hence larger grants for this purpose were given to the missions which, as mentioned previously, were operating with one or two exceptions the only schools in the Northwest Territories. By 1949 the *per capita* grants for pupils in the mission residential schools had reached a figure of between $450 and $500 per year. This grant was determined by an assessment of the actual costs involved in providing subsistence and elementary education for Indian and Eskimo children.

About this time the Indian Affairs Branch of the Department of Citizenship and Immigration became concerned about the Indian population along the Mackenzie River which then numbered approximately 4000. This Branch had been paying small grants to missions for the education of the Indian children in the Territories. In 1949 and 1950 it built schools in the following settlements: Hay River, Rae, Rocher River, Fort Norman, Fort Good Hope, Fort Franklin and Fort McPherson.

During the same period the Department of Mines and Resources, now the Department of Northern Affairs and National Resources, built schools at Fort Smith, Fort Resolution, Fort Simpson, Aklavik, Tuktoyaktuk and Coppermine in the Mackenzie District and at Cape

Dorset and Coral Harbour in the eastern Arctic. Two mining companies also built schools, one at Port Radium on Great Bear Lake, and the other at Discovery Gold Mine north of Yellowknife. Two more were opened in the eastern Arctic by the federal government at Fort Chimo and Port Harrison, both in the Province of Quebec. Because these schools were to serve Eskimos they were under the jurisdiction of the federal government.

THE ERA OF FEDERAL AND TERRITORIAL ADMINISTRATION

In April 1955, through an agreement with the Indian Affairs Branch, the Northern Administration and Lands Branch accepted the entire responsibility for the education of all Indian children in the Northwest Territories, operating these schools under the Indian Act and Regulations. The Supreme Court of Canada had already ruled in 1939 that the federal government was also responsible for the Eskimos in northern Quebec.

Mention has already been made of the four schools that had been built in the eastern Arctic in the years 1949 and 1950 (at Fort Chimo, Port Harrison, Coral Harbour and Cape Dorset). From that time until September, 1955 only two schools were added in this area—Chesterfield Inlet, 1951, and Frobisher Bay, 1955.

Since then, schools have been constructed as follows:

1957	BAKER LAKE	GREAT WHALE RIVER
	RANKIN INLET	
1959	ARCTIC BAY	ESKIMO POINT
	POVUNGNITUK	RESOLUTE BAY
	SUGLUK	
1960	BELCHER ISLANDS	CLYDE RIVER
	IGLOOLIK	IVUYIVIK
	KOARTAK	PAYNE BAY
	POND INLET	WAKEHAM BAY
1961	WHALE COVE	
1962	GEORGE RIVER	GRISE FIORD
	PADLOPING ISLAND	

At the time schools were being constructed in the Arctic District, a more elaborate school construction programme was going on in the District of Mackenzie. By 1958 there was scarcely a settlement there without a well-equipped school. These schools ranged in size from one classroom to 24, the larger ones having a shop, homemaking facilities and a gymnasium-auditorium. Excerpts from a press release issued by the Minister of Northern Affairs on March 28, 1955 outlined the plans:

> "The Minister of Northern Affairs, the Honourable Jean Lesage, announced today that the government has approved an extensive programme of construction of schools and hostels to provide better education for children in the Northwest Territories.
>
> "The programme of construction will be spread over six years. As the need for education is most urgent in the Mackenzie Valley, the main emphasis during the six years will be there. 'Later on', said Mr. Lesage, 'similar facilities will have to be provided in other areas where the immediate urgency is not so great'."

The ensuing six years witnessed the construction of school facilities for practically all children of school age in the Mackenzie District. These facilities included large pupil residences, shops and homemaking rooms where practical skills could be taught. A practical curriculum designed to fit the needs of the Indian, Eskimo and other children of the Northwest Territories was also being prepared. It is of interest to note that the plan, as outlined in this press release, was carried out on schedule despite exceptional difficulties encountered in construction work in such a remote area.

It was obvious that the era of the mission schools was coming to an end. By 1958 only a few part-time mission schools remained in the Arctic District—now all are under the federally-operated scheme. As far back as April 1, 1956, all the mission school teachers had become federal employees. This made it possible to set definite qualification standards for all teachers in the Northwest Territories. From 1956, before a teacher could qualify for teaching there, he should have completed his senior matriculation or the equivalent and have had at least one year's teacher education and preferably at least two years of successful teaching experience.

By special arrangement most of the larger pupil residences, which are owned and financed by the federal government, are operated under contract by either the Roman Catholic or Anglican Church authorities. These residences are adjacent to the schools in the larger communities in the Mackenzie District and at Chesterfield Inlet in the Arctic District. The one exception to this is at Yellowknife, where the pupils' residence is non-denominational and is operated by the federal government. This residence serves the pupils of the combined academic secondary school and pre-vocational training school and accommodates 200 pupils. The federal government bears the cost of all pupil residences.

With the exception of an 80-bed pupil residence for children of the Roman Catholic faith operating at Chesterfield Inlet in the District of Keewatin, the remaining pupil residences in the Arctic District are referred to as small family-type units. They are operated by Eskimo house mothers under the supervision of the teacher or someone else in the community appointed by the school principal. The children in the six to 12 age range are brought together from within a radius of 50 to 75 miles so that they may be visited by their parents during the school year. As the older and more advanced children progress through the grades it is planned to accommodate them in larger communities. The first one of these for the Arctic is planned temporarily at Fort Churchill. The former Department of National Defence facilities at Fort Churchill are now living and classroom accommodation for about 160 of these older pupils. Plans have also been made to establish a similar facility at Frobisher Bay.

A word should be mentioned here about the tent hostel established at Coppermine in 1954. It included nine tents, each accommodating four pupils, with a larger tent for a kitchen and dining room. The children were brought in after freeze-up in November from a radius of 60 miles and returned home before break-up in April. During its two years of operation there were no major mishaps though occasionally a very strong wind would cause a tent to collapse. This hostel was closed when the Eskimos realized that their children were better off at the larger hostels in Aklavik, which operated on a 10-month basis. Another experiment in pupil residence living was carried on at Fort McPherson. Here, 16 pupils were accommodated in a large frame house. This residence was closed when the present 100-bed residence was opened in 1958. These residences were also financed by the federal government, but were operated by the Anglican Mission.

So far this chapter has dealt chiefly with the expansion of educational facilities from the time the federal and territorial governments became active in northern education. Educators will be interested to know what arrangements were being made to see that the educational programme was reasonably adequate for the area and the people concerned. The question of providing supervision for these schools will also be of interest.

SUPERVISION AND IN-SERVICE TRAINING

In 1951 a Superintendent of Schools was placed in the Mackenzie District and located at Fort Smith. One of his first assignments was to determine the curriculum best suited to adaptation for the pupils in the northern schools. Once this decision had been made, the next problem was the preparation of teachers for the north to ensure effective work in the schools and communities where they would serve. Studies were made of what other countries were doing to educate people in similar circumstances. Contacts were made with the United States Department of the Interior regarding the education of the Eskimos in Alaska and of the Indians in various parts of the United States. Studies were made, also, of the progress of education in Greenland, which had been for over a century supervised by the Danish government. Investigations were made of the education programme followed by the Newfoundland Government for Eskimos in Labrador.

Based on these studies, the first summer school was organized, for all teachers in the Mackenzie District, in Yellowknife during the last two weeks in August, 1953. Mrs. Laura Jones, Education Specialist, Alaskan Native Service, was called in to give lectures on the development of a functional curriculum for Eskimos and Indian children. As a background to this, she stressed the anthropological and sociological implications of bringing education to people of primitive societies.

At that time, since the teachers were the only government representatives in the community, they had to perform every goverment service from issuing relief to looking after the adoption of children, and the implementation of the regulations under the Dog Ordinance. Consequently, such people as the Regional Director of Family Allowances, a sergeant of the R.C.M.P. and Hudson's Bay Company officials, as well as those from our Department, were brought into the orientation programme of teachers to outline their respective roles in northern development. Present also were the representatives from the Boy Scout and Girl Guide organizations.

In addition to lectures by the education specialist, Alaskan Native Service, the Chief Inspector of Schools for the Indian Affairs Branch, Department of Citizenship and Immigration, gave instruction to the teachers on adapting a curriculum to meet the needs of the pupils concerned. An expert in the teaching of basic skill subjects, from the University of Alberta, also assisted. Specialists in teaching English as a second language gave instruction in this field. Thus, for the first time teachers, before going north, were given formal preparation for the task of educating native children, many of whom could speak no English. These summer schools are now operated on a regional basis.

In-service training programmes are being continuously improved. In addition to holding orientation courses for new teachers, many shorter in-service training conferences and workshops are held throughout the year in both the Mackenzie and the Arctic Districts. In the Arctic District, for example, the teachers from each of the three regions are assembled at a central point, usually during the month of February, where they have an opportunity to discuss mutual problems and to study the latest developments in the field of education research. Language arts, art education, new mathematics, programmed learning, and the individualization of instruction are among the subjects discussed.

One of the items emphasized during these sessions is the importance of adequate use of materials of instruction. Emphasis is placed upon the use of well selected library books. In 1958 a professional librarian, with special qualifications in school library service, was provided for the staff of the Education Division. Much has been done to expand and improve library services. Toward this end a great deal of assistance has been offered by the National Librarian, who has made available many excellent books for both school and community libraries in the north. These, added to the library books and text books supplied by the Department and those generously donated by the Imperial Order Daughters of the Empire, result in a fairly large collection of interesting books for many of the northern settlements. There has also been provided in the Arctic District, a travelling library service not only to schools but also, depending upon the location and settlement where he lives, to any adult who wishes to borrow books for a period of time. These library services, coupled with the films, coloured slides and filmstrips supplied by the Department and the National Film Board, play a particularly important role in expanding educational opportunity to northern communities while, at the same time, they contribute to healthy recreation. Each new classroom (25 pupils) now has an allotment of $250 for library books, while existing classrooms are allocated $150 each year for this purpose. In this way libraries for northern children are being built.

Early in the 1950's the need for a practical form of vocational training in the Mackenzie District became obvious. Although a few schools had been in operation for some years, very few pupils had reached the high school level. This was not because of lack of ability on the part of the pupils, but simply that where schools were available few pupils had attended school regularly for more than three or four years. Due to the economics of hunting and trapping and the lack of communication with the "outside world", there seemed little need for more than an introduction to formal education. Openings for jobs that became available could not be made most effective use of because vocational training was lacking. Hence it was necessary to organize adult vocational training courses in small communities in the north. Courses of various kinds were operated. In 1953 a nurse's aide course was organized in co-operation with the Roman Catholic hospital authorities in Fort Smith. Indian and Eskimo girls were brought in for a year's training. The Department of Northern Affairs supplied the necessary equipment and Indian and Northern Health Services' doctors supervised the courses. These courses were carried on quite successfully for two years after which, in lieu of this, selected trainees were sent out to provincial hospitals for such training.

In the fall of 1955 a Superintendent of Vocational Training was placed at Fort Smith to work with the Superintendent of Schools in the Mackenzie District. From that time on, vocational training programmes received more attention and courses were geared to the academic qualifications of the trainees selected for such courses. As demands were coming in for heavy equipment operators, carpenters and men for diesel maintenance, plans had to be made for training in these fields. The first major plan called for the training of 120 heavy equipment operators for work on the DEW line. Groups of 30 Eskimos and Indians were taken out to Leduc, Alberta, and given a three-month intensive course. Trainees were housed and fed in the homes of Leduc residents who co-operated wonderfully in the plan. It was quite amazing how quickly and how well the trainees adapted to the new environment and gained skill in the operation of heavy equipment. These young men represented communities from Aklavik in the west to Frobisher Bay in the east.

In recent years, with the addition of more staff, our vocational training programme has expanded rapidly. During 1962-63, in the Arctic District alone, 99 Eskimos received training in 11 different occupations. Eight are now involved in various apprenticeship plans which, over a period of three or four years, will give them journeyman's status.

Adult education has received considerable attention in the last decade. The very fact that teachers are called community teachers implies that they are interested in all aspects of adult education and community development. It is a tribute to the teachers who serve in the north that most of them find time to carry on adult classes in the evening. In recent years adult education specialists have been appointed to the education staff in Ottawa and a beginning has been made to broaden and consolidate a more comprehensive, much needed adult education programme in the communities throughout the north.

Attention has also been given to special education. In recent years handicapped children have been accommodated in various institutions throughout the provinces. For example, there are three Eskimo children attending the Jericho Hill School for the Deaf in Vancouver. Others are at special schools in Edmonton, Brantford and Ottawa.

Another unique feature of our educational programme in the Arctic District is the inclusion of Eskimo classroom assistants. These young Eskimos are 16 years of age but have been in school only long enough to have attained the Grade 6 or 7 level. They spend half the school-day assisting with the non-professional tasks in the operation of a school and spend the other half improving their academic standing. Not only are they of great assistance to the classroom teacher, but they cement ties between the Eskimo home and the school.

Indeed, during the short time that the federal government has taken an active interest in education in northern Canada, a great deal has been accomplished. From an enrolment in 1950 of approximately 1000 pupils, there are now 6260 in the Territories and Arctic Quebec. From a staff of 25 teachers, there are now 327. From a conglomeration of schools operated by no less than eight different agencies, there is now a single system of ethnically integrated schools. In January 1963 the Northwest Territories Council approved a plan of publicly supported universal university education. In the past decade, the school system has progressed from a few small attempts at manual training to a well-organized, practical broad programme of vocational education which includes special agreement for apprenticeship training. In the past, teachers were sent to the north without preparation or special training whereas now the in-service training programme involves several weeks to several months each year.

In addition to this, curriculum committees operate throughout the year in preparing and adapting curricula for northern pupils. Provision is made for educational leave with pay for teachers for every three years of service.

The school and professional library service has been built from very little to one that compares favourably with other school systems. This can also be said of the audio-visual facilities, which include for every school a 16 mm. projector, a tape-recorder, a filmstrip projector, a duplicator, a radio and a record-player. Through pupil residence facilities and local boarding arrangements, we have greatly increased regular school attendance. Progress is also being made with the development of a standard Eskimo orthography which it is hoped will soon be taught in the middle grades. Other developments in school planning, adult education, itinerant teaching, curriculum planning and construction, increased supervision and many other services, have also contributed to the remarkable transition of the people of the north to their present stage of development.

From early beginnings in small schools in distant isolated communities an educational system has been created embracing elementary and secondary education and extending public support to students throughout university and technical schools. The system provides, at public expense, vocational training to all interested persons. A plan of adult education which will involve all manner of adult activity is envisaged and is under development.

To carry out this work competent, devoted teachers are being recruited in ever-increasing numbers, and provision is made for a vital and effective in-service training programme to assist them in their difficult but intriguing tasks. In brief, a unique educational system is building in northern Canada and is rapidly placing the last frontier within reach of the educational advantages that have for many years been enjoyed by other Canadians. Beyond this it has broken new ground by extending to all qualified persons free university education.

Chapter 7

The Flying Superintendent

To many, any travel in the far north that doesn't depend on dogs for locomotion and calendars for timing, simply fails to measure up to their expectation or their credence. But to those of us who are responsible for providing service and supervision to the northland schools of today, it is a matter of great satisfaction and greater relief that air travel is readily available and thoroughly dependable. Just when the last school inspection by dog team was carried out I have no idea—probably not many years ago—but I share the hopes of all superintendents in the Territories that it really was the last.

It is no exaggeration to say that the present school system in this vast region would never have been possible and could not be maintained without the aeroplane. When the history of the Great Educational Experiment of the Arctic is finally written and, we hope, credit is given where it is deserved, the contribution of the bush pilots should stand high on the list. This is true of course of all northern development, but when we think of the teachers, pupils, books, supplies, rations, buildings and equipment that have been distributed to the farthest corners of Canada's Arctic in order to impart at least a little learning to the youngsters there, we are particularly conscious of education's debt to aviation. Our annual airlift of students transports over a thousand boys and girls distances of up to a similar number of miles. It involves also their return 10 months later to their towns, villages or camps. All this is accomplished in the space of only a few days, and is a marvel of flying skill and top-quality logistics. To all concerned it is a matter of fervent thanks to a kindly Providence that a serious accident has never occurred.

What tasks face a superintendent under these conditions? Basically they are much the same as those in Vancouver or Toronto or Annapolis. We are forever engaged in a struggle with the four demons that bedevil all school administrators:

1. the clarification and identification of objectives,
2. the provision of the best people in the right places to attack these objectives,

3. the provision of all the things these people need to make their attack successful, and
4. the provision of opportunities for these people to communicate readily with each other and all others concerned about the progress of the attack.

In Canada's northland our struggle is somewhat more primitive, a good deal less stereotyped and, at times, a bit lonely. But compensations are adequate. The hand of tradition and experience is still light enough to guide and inspire, and seldom heavy enough to impede. An aura of adventure still hangs over us. Relations can still be warm, and personal and human, because our whole team is small. Not too many of us know of too many things that can't be done. The progress we make, no matter how small, stands out like a beacon, for up here *any* progress is progress indeed.

The pattern of organization for our supervision is simple and workable. For instance, the District Superintendent of Schools, resident at Fort Smith, exercises local general supervision and guidance over the schools of a district stretching from the 60th parallel to the Arctic islands and from the Yukon border to Keewatin—in all, about 800,000 square miles, 35 schools, over 200 teachers and about 4500 pupils. His duties include everything pertaining to education. To assist in this work are three Regional Superintendents, one located in each of Fort Smith, Yellowknife and Inuvik. Each of these is responsible for a region that comprises about a third of the total area of the District and about a third of the school population. The duties of a Regional Superintendent include all routine administration of the schools of his region and he is required to keep in communication with his schools by visits, by letter, by wire and often by radio. In professional matters Regional Superintendents deal directly with the District Superintendent, while in non-professional things they work with the various Area or Regional Administrators located in their Region. To accomplish all this, a Regional Superintendent spends a major portion of his time travelling to schools throughout the District, usually by air, but, now that roads are improving, sometimes by car. He is assisted in his school contacts by a principal-at-large and a teacher-at-large, who travel almost continuously, going from school to school to offer direct classroom assistance and advice to teachers and principals, but who do not make evaluations of teachers' work for report purposes.

The District Superintendent who exercises supervisory authority in the District also acts under the general supervision of and as the official contact with the Ottawa Office of the Education Division.

His relationship with the Mackenzie District is similar to that of a Superintendent of Schools in southern Canada with his school district, and his relationship with the Education Division is similar to the relationship between a District Superintendent of Schools in southern Canada and the Department of Education of his province. To carry out his general supervisory duties he visits school communities as often as practicable and tries to see each at least once during the year for consultation with teachers, principals and administrators. These visits make possible a general evaluation of the effectiveness of the educational programme of the District and provide on-the-spot information about problems and difficulties as they arise. From the results of this general "survey" approach the District Superintendent is required to study and recommend plans for improvement and expansion.

Probably the best way to give a reasonably authentic picture of the kind of work undertaken and conditions met by superintendents as they visit the schools of this sparsely settled land, is to relate a first-person account of an actual trip. In this case the District Superintendent of the Mackenzie relates the details of a visit to the southwestern part of his territory as follows:

"January, early January and the flight time is, to quote the pilot, 'As soon as I can see the plane'. In actual fact it was 9.00 a.m., but north of the 60th parallel this is still a long way from sunrise. The temperature is a reasonable 20° below and it's snowing with about eight inches of fresh snow on the ground. Bad weather for flying and very likely we'll have to wait for an improvement. However, no phone call comes to indicate the delay so I proceed to get into cold weather clothing and make last minute arrangements.

Earlier in the winter I was fortunate to get a complete outfit of Arctic gear consisting of parka, wind pants, special overshoes, and mitts. They are made of a new fabric called Duplan and lined with flalon, a sort of synthetic wool. This particular combination has been developed as the result of long experiment by the R.C.A.F. and the National Research Council and is generally regarded as the best answer yet to the question of how to keep warm *and dry* in Arctic weather. It has the happy quality of permitting the evaporation of body moisture while retaining its wind-proof quality. Certainly I have found it ideal; warm, light, comfortable and reasonably presentable under temperatures nearing the 60° below level. The Duplan 'crackles' like taffeta in the intense cold but a good many other things 'crackle' at 50° below and, after all, taffeta is considered glamorous!

When we arrive at the Fort Smith airport, the snow has almost stopped and the weather report is for 'clearing skies by mid-morning.' Our party consists of a representative of the Forestry Department,—let's say 'George'—and one of the Welfare Department's social workers, whom we will call 'Nelson', and, of course, our pilot, Hon Mar, a young West Coast Chinese boy with experience to burn and a flying record that even the other 'professionals' envy. Our plane is a 'Beaver' made by the De Haviland Company and regarded as the 'work-horse' of the single-engined planes. Made in Canada, it has earned a reputation the world over for safety, dependability and versatility. Passenger-carrying capacity is six if you don't mind being crowded, but more generally four, with a cruising speed of about 115 miles per hour. With our gear, including sleeping bags which are a "must" in all winter flying, and full emergency supplies and equipment, we have a full load. The airport attendant had spent an hour or so getting the engine warm by the approved 'blow-pot' method. This consists of placing over the engine a heavy tarpaulin which droops to the ground. Then into this "tent" a couple of large gasoline-burning 'blow-pots' are placed and permitted to roar away for an hour or more till the engine reaches a reasonable starting temperature. We were to go through this routine many times in the next couple of weeks, and never once did it fail to work, despite the pessimistic observations that we always managed to provide for a long suffering but good-natured pilot.

Our plane is fitted with 'ski-wheels', which is an ingenious combination of the two, so arranged that the wheels protrude through the skis and enable the plane to land with equal ease on bare runways or snow-covered 'strips'. The attendant waves us off to the main runway and with no more fuss than driving to the corner grocery we are airborne and on our way to Hay River about 120 miles northwest on Great Slave Lake. Though the cabin is bitterly cold at first it isn't long before the heater pours out a steady stream of warm air and we can unbutton our heavy clothes, throw back the parka hoods and feel thoroughly comfortable.

We fly at about 2500 feet because the ceiling is low and in this kind of weather landmarks are reassuring. The broad white band which is the Slave River disappears off to our right and we watch seemingly endless miles of frozen muskeg and scrubby spruce. Here and there the tracks of buffalo are visible and several times we catch a glimpse of small herds dotting the whitened wilderness. About 25 miles out of Hay River we catch up with the snowstorm that had blanketed Fort Smith during the night and in a few minutes visibility is reduced to about a quarter of a mile and our pilot edges down to within a few hundred feet of the tree tops. The vast expanse of Great Slave Lake looms up on our right and in a few minutes we spot the buildings of Hay River. One pass over the air strip (which is a section of the river) and we are eased down into the soft snow to a routine landing. A wide open throttle is necessary to bring the plane in to the bank through a good 12 inches of dry "powder snow" but the whole operation is so common that passing motorists and pedestrians scarcely turn their heads. Minor radio trouble is reported so we decide to walk up to the hotel for coffee while a check is made and the plane refuelled. One hour and we'll be on our way again.

The coffee shop is full of friends as it is 'coffee break' time and we are in the middle of exchanging news when word arrives from the plane base that the weather is bad and getting worse and our pilot says that there'll be no more flying until it improves. He is boss in this department so there's nothing for it but to take a room at the hostel and make good use of our time in Hay River. Though none of us had planned to do any work here on this trip, there is always plenty to be done, so we report to the Area Administrator of the Department of Northern Affairs and National Resources to let him know we are working in his town, and then go our separate ways. For me, a call to the principal of the Federal school brings him over in his car and in a few minutes we are in his office going over a host of items he has been saving for such an occasion. His is a 12-roomed school including Grades 1 to 11, with a thoroughly experienced staff and few conditions you wouldn't find in any school in any small town in Canada, except that classes tend to be smaller since we try to keep the average down to 25. Sometimes our southern friends envy us but this is one of the ways we try to balance the language problems of native children and the isolation of northern living. As superintendent I try to meet all members of the staff for a few minutes, listen to their suggestions, answer some of their questions and make notes of the others for later reply. There are some building problems, too, such as pipes that are not properly insulated, and basket ball hoops for the gym that have not arrived, and supplies for the Industrial Arts teacher. These apparently were never ordered. And so it goes, for the day—with a pleasant break for lunch—and at all times a feeling that you're welcome even if you are a superintendent.

It's dark by 3.00—still snowing—and now 35° below. By the time I reach the hotel and talk to the pilot about weather for tomorrow I am fully aware we are in the middle of a really bad 'pattern' and we can expect to 'sit it out' for several days. I phone to Fort Smith to let them know the situation and advise that they tear up our inspection plan and wait until they see us. We were supposed to be home in five days. This is hard on wives, who can only listen to radio reports, depend on the 'moccasin telegraph' and watch the snow flakes. The evening, despite a 35 m.p.h. wind and 40° below finds us at the local 'movie', followed by coffee, a warm bath and a very comfortable bed. If this is northern pioneering, I say to myself, then someone has been misleading me!

The next day brings more of the same from the weather man so I decide to visit the Separate School, which is administered by a local Separate School Board. My special interest relates to teacher supervision and curriculum work. This is a fine new school of 10 rooms with a gymnasium-auditorium and all modern equipment. The Sister-in-charge seems genuinely glad to see me and takes me over their new plant. Certainly this building is a credit to the local board and the staff is obviously a happy and congenial group. In the course of my tour, one of the teachers brings up a problem I am to meet many, many times as I travel through the District. How can we maintain academic standards for the pupils who are used to our ways while trying to bring along our native youngsters who aren't? This is the major teaching problem of the north, and like all such problems in education there is no 'pat' solution. Ours is an 'integrated' system and we would have it no other way, but such gains always demand their price. I talk over the general objectives with the troubled teacher and then outline a few of the ideas other teachers use, and find helpful. The talk seems to bring some reassurance—a fact I find so important when visiting teachers in this north country. Communication—the opportunity to discuss and argue and listen to others—assumes an importance far beyond the usual for southerners, who take it for granted.

After a pleasant day, I return to the business of trying to outwit nature in a land where she seems to hold most of the cards. The weather report is better, if no snow, more wind and lower temperatures can be considered 'better'. But by morning the wind is gone, skies have cleared and the pilot has the 'blow-pots' going. By 10 o'clock we are able to taxi out on to the strip, where the snow has been well packed by the driving wind even though there are more furrows than in a ploughed field. To a newcomer this sort of place for a plane take-off looks like a rather violent form of suicide but these boys know their planes and if they say they can do it without unreasonable risk, you can relax. I did, after the pilot had been proved right.

Our next stop was to be Fort Simpson at the junction of the Liard and the Mackenzie, about 225 miles northwest of Hay River. The flight is smooth and routine, with the thermometer ranging between 45° and 50° below and the skies clear and the visibility good. We fly over the Mackenzie en route and even at 5000 feet its vastness is impressive—from one to three miles wide, winding in gigantic loops across a plain that reaches to the horizon in all directions.

I had planned to visit our little one-roomed school at Jean Marie River, about 40 miles from Fort Simpson so the skipper tries to get a radio report on landing conditions there. Yes, a plane had made it the day before, but the strip was rough and the pilot advised against our trying it with a heavy load. We decide to have a look because I've learned not to pass up such visits if at all possible. To men or women locked in a snow prison with only a few Indians as companions, a visit is an event that shortens the winter by weeks. But two low 'passes' over the river in front of the settlement reveal long ripples in the snow that are really ridges several feet high, and we all know that landing is out for today. Small figures appear from the houses and a little cluster from the school to wave furiously as we pass over their heads. There is a rush for the river strip but we 'buzz' them again, wiggle our wings and then straighten course for Simpson. I note that one more of my carefully laid plans has had to be scrapped.

A refuelling stop at the Fort Simpson airport about 15 miles from the town, and then a short hop to the little air strip almost in the centre of the town, uses up the rest of the daylight.

The Area Administrator taxis the party to a vacant house which is kept ready for visitors, and in no time we are comfortable and ready to go to work. For me this means a visit to the school for a talk with the principal and staff. This particular school is almost brand new, with a student body of 300 and a staff of 18. Over half the boys and girls come from the pupil residences which are close by, one of which is operated by the Anglican Church and the other by the Roman Catholic Church under the direction and supervision of the Federal Government, which finances them. They are new and exceedingly well-equipped, bringing the best of modern living to young people who find it all very strange and fascinating. For the most part the children are Indian and come from remote villages and camps in the region. This particular complex houses about 200 and is part of the pupil residence system which operates throughout the

Territories. In this way the children are brought to education and experience in a new kind of social living rather than through the reverse procedure that most of us are used to.

The principal extends an invitation for me to watch a short original play being put on in the auditorium by a group of older students. I am struck by the fact that all those taking part are Indian youngsters and their director explains that this is a first attempt, in a programme designed to help these youngsters improve their spoken English. The student audience is obviously fascinated and sits motionless and silent. Suddenly I realize that for a large percentage of the young people, both white and Indian, this is the first time they have ever seen live performers on a stage and the whole process has them fascinated. To me, the reaction of the audience is much more revealing than the action of the players.

At a staff meeting after school, the teacher who had directed the play asked if I could give her the names of suitable plays for her students. I know where I can get a wealth of such information and assure her that I will send it along as soon as I can get it from home. Again, I realize how vital a contact with 'outside' is to these people.

Just before dinner I call at the pupil residence for a visit with the superintendent. He has a list of problems ready for me and we walk through the building so that I may see first-hand just what needs to be done to overcome them. The youngsters are all in the dining room as we pass and I stop to have a look and watch the proceedings. Even the most inexperienced eye can see that this is a well-controlled but thoroughly happy situation and that for many of the boys and girls their days here must be among the most comfortable they've ever known. Different views have been expressed about moving youngsters hundreds of miles to school. This is an environment which is so different that many of the six- and seven-year-olds must regard it as a new and unrelated world. As far as meeting the immediate physical needs, there can be no question.

A quarter mile walk to the hotel dining room for breakfast the next day makes us acutely aware that this is a cold morning; with snow 'screaming' underfoot and the fur on our parkas stiff with frost in a matter of moments. The pilot meets us part way with the news that its 57° below, just about the limit for safety with the Beaver but that he has the motor warm and will be ready for take-off as soon as we arrive. From the hotel we look out across the vast expanse of broken ice that covers the river—nearly two miles wide here—and listen momentarily for the crack and rumble of the 'pack' in the frigid air. I find it hard to realize that I am actually standing on the edge of the Mackenzie River—for like most Canadians this giant has never meant much to me except a name in a book and a wandering line on a map.

After breakfast the Area Administrator, who is to accompany us, takes us down to the strip where the Beaver is already lined up on the path our skis had made in yesterday's landing. We climb aboard for the taxi run to the other end. The other end, however, almost proves to be our undoing, for no matter what is tried the skis simply will not make the turn and eventually it is a case of cutting the motor and turning the plane by hand. The four of us pile out and begin a series of mighty heaves on the tail and at this point I begin to realize how cold metal can be at nearly 60° below. Even through our parkas and mitts the searing pain hits our hands and shoulders after only a few moments of contact. During the ensuing brief struggle, Nelson comes up with a couple of frozen fingers but we manage to turn the plane around and pile back in to get our hands and arms thawed. We manage another of our bouncy take-offs during which the plane literally hops from one snow ridge to the next, and we all settle back for the run to Nahanni Butte at the junction of the Liard and Nahanni about 75 miles to the southwest. Almost as soon as we have gained cruising altitude we can see the great wall of the Cordillera to the west, nearly a hundred miles away but crystal clear in the brilliant sunshine. For the first time I realize that in this region the great plains run almost unbroken to the very foot of mountains with almost no sign of the foothills we are used to seeing farther south. The flat expanse below is criss-crossed by hundreds of the arrow-straight lines which mark the clearing done during oil explorations. Throughout most of this northland it is hard to pick a spot where these are not visible.

The little Indian village of Nahanni Butte lies right at the foot of a massive 5000 foot wall of rock that rises out of the treeless plain, while a mile away is the single pinnacle of granite that juts a thousand feet out of the muskeg like a gigantic tooth and which gives the place its name. As we circle around the village looking for a good place to land, I get a glimpse up the valley of the Nahanni that winds away to the northwest between towering mountain ranges. This is the valley—frequently referred to in past years as the 'Headless Valley'—which has given rise to so many tales and legends of strange people and strange events.

Our landing has to be on the river because the strip is too rough so we pick out a likely spot and set the Beaver down as gently as rippled snow and broken ice will permit. As we taxi toward the bank a figure appears, running towards us waving his arms in obvious concern. Our pilot stops abruptly, cuts the motor and we scramble out to find that only a short distance ahead of our plane there is a heavy overflow of water over the ice and under the snow. The man from the village explains that once in it a plane's skis freeze solid and the only solution is to chop them out, hoist the plane up on blocks and chip the ice off. He points to his own small plane frozen solid to the ice close to the bank and explains that that's what happened to him only the day before. He is sure it will take at least a week to get it out, so we congratulate our pilot on his good judgment and better luck.

During my brief visit the teacher takes me round, showing me samples of the work being done and I have a chance to have a look at the 14 boys and girls at their work. All but one are native children and many are over-age because this is an isolated band whose contact with 'our world' has been almost nil. They are learning English and for the most part this is the teacher's major task. Their parents speak almost no English, so the school teacher must carry the entire load of getting the youngsters to try a new language. Small wonder that in some situations educational progress is so glacially slow. Courage and the precious gift of infectious inspiration are primary requisites for such teaching tasks.

By now impatient voices are urging me to return to the plane, so I must decline an invitation to coffee from one of my missionary friends, and complete my notebook list of errands for the teacher and head for the river bank. I stop for a moment to look at the natural beauty of this tiny community, for it is in a picture-book setting high on the river bank, tucked in among the spruces and poplars, with the massive snow-covered bulk of the mountains a few hundred yards away. The new log Mission Church with its tiny flying buttresses, the log school and teacherage and beyond that a neat row of small log houses built by the Indians under the direction of the Indian Affairs Branch, combine to leave a very pleasant memory as we bank sharply over the river and skim the summit of the 'Little Butte'.

Another 45 minutes brings us over a wide smooth stretch of the Liard River and we spot the familiar row of small evergreens stuck in the snow to mark a landing strip. We 'buzz' the little town of Fort Liard and then head into the wind for a landing that takes us right to the foot of a steep path leading up to the village. As we climb out, welcoming shouts come from the bank as a small cluster of people converges on the plane. I cannot pass up the opportunity to pause long enough to watch two dog teams approach from across the river, heading for the pathway, sleighs loaded down with firewood. The unending struggle to keep warm in this icy January wilderness is epitomized by this steady procession of wood cutters, of which I am seeing only a fragment. We are greeted by the teacher, the 'Mountie' and the Game Warden, Liard's only officials. The Area Administrator and I follow the teacher up to the school while Nelson and George head off with the others for a short discussion of mutual problems.

This is another one-roomed school but quite different from Nahanni, for this is of frame construction with a comfortable teacherage attached. I cannot help but be impressed by the immaculate order of the premises, both inside and out, and when I follow the teacher into the classroom the same care is obvious on every hand. The youngsters—mostly Indian—sit with utterly impassive faces as though such visits are commonplace, but after the first few minutes quiet glances and fleeting grins soon dispel the illusion. They are shy and embarrassed, not blasé. This is a scene of a fine classroom and since a break is about to begin, I ask the teacher if he would pose with his youngsters for a picture. This achieves something of a break-through and giggles become the order of the day. They 'freeze' at a word from the teacher and in a moment I have what I want. Next we are introduced to the 'lady' of the teacherage and in no time it is coffee and an enormous wedge of apple pie for both of us. We are virtually overwhelmed with questions and conversation as these kindly people try to get their troubles off their minds in the short time left. As we get up to go, I find myself feeling guilty that I had not planned to stay longer. They had expected us to stay overnight and obviously find it hard to understand why we are hurrying on. 'We've so much we wanted to ask about' they say reproachfully, and I recognize that I am failing in one of my important jobs, helping to provide much needed communication. This is a lesson to note carefully, so I apologize and promise to return for a longer stay later in the year.

When we get to the river, the pilot is alternately beating his arms to keep warm and studying the mountains to the west, which are our next objective. Nelson has planned to stay a few days and undertake some much needed community welfare work, so the four of us climb back into the frigid Beaver and brace ourselves for the longest single hop of the trip. This is new territory, even for our pilot, who studies the map carefully. We are planning to make Watson Lake on the other side of the mountains before nightfall, which can only be done by cutting straight west over the divide because there is not time enough to follow the Liard Valley, which is almost twice the distance. Our chart says the mountains are about 7500 feet here, which means creeping up close to the 10,000 foot ceiling of the Beaver in order to be reasonably safe should we run into clouds. For me, at least, this is adventure and I find my senses tingling as I look ahead at the massive wall of the Rockies. It is a long steep climb and I find myself watching the altimeter and trying to gauge whether or not we will have the necessary altitude by the time we reach the jagged peaks. The sun low in the west casts a pink glow on an endless sea of stark white ridges and I start spotting lakes in the valleys below and try to measure whether or not we could reach them if our engine failed suddenly. This is probably a poor if not downright morbid pastime, and I feel especially foolish when I look back and see the others fast asleep. Imagine them missing such a magnificent view!

At one point we pass low over an oil-drilling rig and I try to work out how anyone could possibly get such equipment into this inaccessible wilderness, let alone operate it. We see the long straight clearing that marks the survey line of the British Columbia-Yukon border, for we are over the divide and no longer in the Territories. The sun disappears over the western mountains and I realize we are taking longer than expected, but the pilot explains that we've been bucking a 40 mile an hour head wind and will need all the daylight we can find to make the Watson Lake airport before we run foul of the air regulations. Our Beaver is not equipped for night flying and consequently must be on the ground not more than an hour after sundown. Just at this stage we find that our radio refuses to function, or at least refuses to pick up Watson Lake. This information brings the 'sleeping beauties' behind me to wakefulness to join in trying to spot the first sign of our destination. Suddenly, a bright flash dead ahead rivets our attention, followed in a few seconds by another and then another. It is the airport beacon and a pleasanter sight I can't recall. In a few minutes we are over the town, take a quick look at the street lights and neon signs and then glide in for a beautiful landing on the long smooth runway that is the chief justification for Watson Lake's existence. As our pilot checks in to the airport office, I overhear one of the boys inquire with rather heavy sarcasm whether he preferred landing in the dark without radio contact or was he just trying to prove to us that he could do it!

One of George's fellow foresters from the Yukon is on hand with his truck to drive us to the hotel and after a short trip along the famed Alaska Highway he deposits us at Watson Lake's 'newest and finest'. It proves to be both new and fine, one of the best in the north and we revel in some of the comforts of 'real city living' again."

This, then, is a part of the life of the Flying Superintendent.

Chapter 8

Northern School Profile

THE CLASSROOM

The Mackenzie District is an extensive and varied area: the schools of the district, apart from the common feature of newness (most were built in the past 10 years), reflect this background as they range from isolated one-room units to large modern units similar to those in urban centres. Since no one type predominates, it would be extremely misleading to talk in terms of typical schools and typical classrooms. In order to provide a brief overall view of the physical side of northern schools, perhaps the best approach is to examine a representative example of the larger schools, e.g., Sir Alexander Mackenzie Federal School, Inuvik, and one of the small schools, e.g., Snowdrift Federal School at the eastern end of the Great Slave Lake.

In common with the other larger Mackenzie District schools such as Fort Smith, Yellowknife, Hay River and Fort Simpson, the Sir Alexander Mackenzie School has, in addition to a complement of regular classooms, a number of well-equipped specialized sections that include science and home economics rooms, a shop, a library and a gymnasium-auditorium with floor space of 60 by 84 feet. The 25 regular classrooms that house students from Grade 1 to Grade 12 are, apart from their location, very much like urban classrooms "outside". They are roomy, cheerful, well-lit and very well-equipped; each room, connected by an intercom system with the principal's office, has thermostatically controlled steam heat.

But not all schools are large; the small school is also present. Beginning in a tent as a two-month summer school in 1957, the Snowdrift School has grown into a single classroom unit of prefabricated construction. The regular school opened in 1960 under the direction of Mrs. M. Lynch with 36 Indian pupils attending. The school is heated by automatic oil space heaters. Electric power for both the school and the teacher's residence is provided by an electric generating plant. Mail delivery by incidental plane traffic is infrequent and unreliable, leaving the Hudson's Bay Company wireless as the only dependable communications system. Located along the rocky shoreline of the east arm of Great Slave Lake, this school is extremely isolated and requires the utmost in resourcefulness, ingenuity and devotion to duty from its teacher. The plumbing has been installed but as yet the rocky terrain has prevented the establishment of an adequate sanitation system. Lack of companionship and the normal amenities of life add to the hardships and challenge faced by the teacher.

It is fortunate that most schools are multi-classroom units with modern plumbing and heating, satisfactory sanitation facilities and efficient janitorial service. In fact, due to the lack of effectiveness of the one-room school, present policy provides that no schools of less than two rooms be constructed within the Territories.

THE PUPIL

The pupil population is made up of Eskimo, Indian, Métis and white children. Eskimos predominate in schools along the Arctic coast, while Indians and Métis are in the majority in schools in the rest of the district. The white children attend school mainly in the larger settlements. In most classrooms the native born predominates, and although equal in intelligence and ability, the children differ widely in tradition, backgrounds, desire and achievement.

In general, native children are quiet and shy, but cheerful. Most of them are interested in school during early grades and, considering that they have to learn English as a second language, do very well. As they progress into the senior elementary and junior secondary school grades, there are several factors that militate against their success in school. Such factors as lack of educational background and literary tradition, lack of parental concern, and the need by the family for assistance on the trap-line often result in a slow rate of progress and in the more extreme cases to loss of interest and to drop-out.

To illustrate the school problems of an average native child let us consider the case history of Padluk, whose Eskimo parents trap in the Mackenzie Delta. Nine years old when he started his education, Padluk completed his first two grades in three years, spending most of the first year in learning English. Promoted to Grade 3 and just beginning to feel secure in the school environment, Padluk (then 12 years old) was withdrawn from school to assist his father in the spring trapping. Promoted to Grade 4, he found himself behind his classmates in his studies. As this situation was repeated, necessitating failure in some grades, Billy became more and more frustrated and disillusioned with school life. At 15 years of age and only in Grade 5, Padluk left school for good.

Very few native children have completed their high school and gone on to further training. For example, in 1963-64 in Sir Alexander Mackenzie School in Inuvik, Indians, Eskimos and Métis made up about six-sevenths of the entire school population, but only one-quarter of the Grade 12 class for that year. Although the situation is improving steadily and each year more Indian, Eskimo, and Métis children are going further in school, it will be some time before large numbers of them will complete high school. The number of pupils in Grade 12 in the Mackenzie District in 1950 was nine. Thirteen years later this number had grown to 75. From now on it will grow at an accelerated rate because more children in recent years have been able to begin school at the normal age. Because of this and because of the desire of the children in the larger schools to continue with their education, the number of pupils in the upper grades is growing rapidly.

THE TEACHER'S PROBLEMS AND SOLUTIONS

The term Community Teacher usually arouses some interest among new staff members, and it sometimes comes as a little surprise to learn that in the north a teacher's responsibility to the community is more direct than elsewhere. Although every teacher's first duty is to the pupils, the settlements depend heavily on the teacher's leadership and participation in many projects not directly connected with classroom work, such as recreation, building programmes and health services. For example, one teacher in a small isolated community, through need, undertook to supervise a maintenance crew doing road repair work.

To the newcomer the rugged terrain, severe climatic conditions and varying degrees of isolation are radically different from the comforts of home. For a few, the long, dark days of winter, with temperatures of 50 below and howling winds are just too much to endure; these few react strongly and leave quickly. For others the new environment is just another challenge to be accepted and enjoyed. There is much truth in the statement that the Arctic either attracts or repels strongly. In spite of this, it is interesing to note that the teacher turnover rate, averaging approximately 25%, compares favourably with that elsewhere in Canada.

With the opening of school, many of our teachers meet the Territorial curriculum and the native personality for the first time. It is natural that the development of familiarity with these will take a little time. Although, with a little patience and study, problems with the curriculum are soon overcome, the teacher must make a good deal of adjustment and adaptation to his new charges. The general acceptance that it is beneficial for some children to pursue the native way of life during the trapping and hunting seasons, even to being absent from school, comes as a shock to many of the new teacher recruits. Even without the complications of a life sustained through trapping and hunting, the problem of enforcing attendance at school is often a major one. An absence of desire for education, or an understanding of it, on the part of some native parents creates additional problems for some teachers. In a short length of time the new teachers realize that the school programme must be suited to the children, and to a certain extent sold to them. Kindly but firm treatment is a most effective tool. In one small school a teacher was met by apathy and tardiness. She soon solved her problem by visiting the delinquent homes and rousing the children from their beds. A couple of such visits solved the problem in that community—and sold the teacher to the parents!

Irregular or infrequent mail service to remote schools is not only a disturbing factor both personally and professionally, but often makes it difficult to obtain supplies when these are not ordered at the proper time.

In some small communities where permanent schools have not yet been constructed, summer schools have been held. In the early period of federal school operation a number of such schools were run. For example, after successfully opening the first summer school at Snowdrift, in 1957, the two teachers concerned reported:

> ". . . No provision had been made for a classroom when we arrived in the settlement, and during the first few days, the weather was such that it was impossible to hold outdoor classes. Therefore, the first part of the week's work on the cabin (teacherage) was completed by the janitor,
>
> . . . an area was cleared (for a tent) and on July 18 formal classes began.
>
> . . . As soon as permission was given to use the Church as a school, we moved there. The pupils must sit on benches and they have no desks to work at . . ."

While the above quotation relates to an out-of-season school back in 1957 and would not be duplicated in the well-equipped modern schools of today, some teachers still live through vivid frontier experiences. One such is related by a teacher who had decided of her own volition to visit on foot during the winter a community many miles away. The following is a verbal account dictated to an R.C.M.P. constable shortly after the teacher returned.

STATEMENT OF ANN EMMETT

Principal, Igloolik School

Foxe Nursing Station
November 18, 1963.

"Don Bissett had made arrangements for the guide to take me to Igloolik. While the day was not as clear as one might wish, the visibility was not too bad, the winds were light, and it was not snowing. I relied on Don's judgment—confident that one with his experience in Arctic travel would not let me leave in weather that was too bad. Before we left, Don provided us with a caribou skin for the sled, and made sure that my guide had a primus stove.

At about 10:00 a.m. November 12, we set out for Igloolik, stopping for a few minutes at Napakot, an Eskimo camp about three miles from Foxe Nursing Station, along the route to Igloolik. There, he picked up from his home a good sized wooden box to hold my things and a smaller box containing his primus stove and kerosene. We lashed everything to the sled, and away we went.

After dark, we passed sometimes through clear areas, sometimes through long stretches of dense white mist. I had begun to feel somewhat nervous about the guide's finding the way (for we had travelled for one to two hours through zero visibility) when he halted for tea and, pointing back whence we had come, said, 'See? Foxe!' I could see the bright, white light of the Foxe beacon flashing sharply. 'Well', I thought, 'he evidently can find his way through this soup!' I believe I then asked him the time, and was told that it was 10 o'clock. The wind had risen, and it was snowing a little. We had tea, then went on. I had been dozing off and on for awhile, when I wakened and thought I saw the lights of Igloolik. I remarked that the stars were very bright, and that the Big Dipper was to our right, and the little star that seems to have floated away from the Dipper, on our left. I thought about arrival 'home', and of how happy Ruth would be to get the mail. I dozed off again. I woke with a start, to find that the sled had stopped. There was something about the way the guide was standing there, looking about, that gave me the feeling we were lost. I asked: 'Where is Igloolik?' He smiled sweetly and said, 'I don't know'. I said: 'Where is Foxe?' He replied, 'I don't know.' I asked, 'Are we lost?' He said, 'Yes'. I felt sick. It was then 6:30 a.m. Pointing to the left, he said, 'Maybe Igloolik is there'. I said, 'O.K.,' and we set out in that direction. Along the way, I saw two rusty iron articles, one of them a small stove of some sort. I felt encouraged that at least somebody had passed that way before. At about nine or 10 o'clock, we stopped on a path through very rugged pack ice, and it was obvious that he didn't know where to turn next. He said, 'Too much ice'. I said: 'Can you find Igloolik?' He replied, 'No'. I decided that we ought to retrace our steps, following our tracks back to our 6:30 point of departure, so that we should be no more lost than we had been then. However, before we could reach that place, we found that our tracks had already been obliterated by drifting, soft snow. It was blowing and snowing a little, and was beginning to grow dark. I asked him if he could build a snow house. He said he could. He turned his dogs off-course into the relative shelter of a slight hollow.

When he had finished all but the roof, the guide said that he could not make a roof. Later, he explained that he needed a big snow knife for that job. We had a narrow piece of frozen canvas which we stretched across the top of the igloo, above our heads.

We had about a gallon of kerosene. I had two sleeping bags, one for each of us. I think we could have eked out our food supply to enable us to subsist for about three weeks. As it was I rationed us to the bare minimum of food per day. We kept the primus stove on just long enough to make tea, then turned it off immediately, to conserve fuel. We had no light. We had no food for the dogs.

Despite a terrible cough, the guide slept like the proverbial log, from six or seven p.m. until I wakened him the next morning. I slept hardly at all, on account of the cold, and an uneasy state of mind. The wind blew fairly hard throughout the night. Snow sifted in through the chinks, and blew in from above the open portion of our shelter. I prayed the weather would clear in time for us to judge direction by the stars or the sun. Once, two of the dogs approached the door of the igloo, and I had to rouse him to deal with them.

Remembering that we had lost the sun November 19th. last year, and considering the constant bad weather of the past while, I was not too hopeful that we should be sighted from the air. We could only guess the way to Igloolik, and had no idea how far away it was. I knew, at least, in what general direction Foxe lay. There was, moreover, a beacon there—visible for many miles on a clear night—to help us spot the base. Surely the thing to do was to try for Foxe. All I knew of the way to Foxe was that when we went from Igloolik to Foxe, we had the sun on our right and the dark band that signifies the open sea, along the horizon to our left.

By about five a.m. Thursday morning, the sky had cleared, and I discovered that the Big Dipper was now just to our left in relation to the way our sled was turned, and I judged that the sled was facing south. When the sun—no longer actually rising above the horizon—glowed through the whitish haze of early morning, at about nine a.m., sure enough, it was on our right. That our sled was now facing south meant that just prior to stopping the night before, we had been moving north-east.

I was not as amused as my guide was to find that one of the dogs had eaten its harness.

We travelled south without stopping until, about 3:30 p.m. Thursday afternoon, a plane circled overhead. I took off my coat and waved my red thermal jacket madly. But it was dusk, and we were not sighted. Although having a plane circle directly overhead and then fly away was most upsetting, it was also encouraging for I felt sure that we were on the right track; and as it was so late in the afternoon, I thought that the plane was surely headed for Foxe, and not too far from base.

By about 4:30 p.m. it was too dark to proceed, so we stopped for the night. A snow house had scarcely been started when what sounded like a big plane passed directly overhead, from our left to our right, and very low. I guessed it was either about to land, or had just taken off, and felt doubly sure that we were in the neighbourhood of Foxe. Because our sleeping bags were quite damp by now, and my mitts soaked, and as I felt so encouraged by the planes, we kept the primus stove on for about half an hour or more. The light was good for the morale, and I got my mitts dried a little. The guide put the dogs' harnesses on top of the narrow canvas cover of the igloo so that the dogs would eat no more of them.

I knew we should find Foxe if we cut down to the ice and followed the shore. What I did not know was whether we were now north or south of Foxe. I planned to go north for one day, then, if unable to find the base, to retrace our steps and continue southward. As soon as it was light enough to see, we began. The guide seemed reluctant to move north, and I concluded that it mattered little which way we tried first. The visibility was fairly good. At about two o'clock Friday afternoon, I asked him if he knew where he was. He said he thought so. I asked him if he thought he could find Foxe. He said maybe.

Shortly after that he shot three Ptarmigan which were fed to the dogs. He told me that he had been at this place before, was more positive than he had ever been before, and assured me that he could find Foxe. This was reassuring, as up to now he had never committed himself further than a 'maybe', but he had said that we would come to ice 'down dere'. We had indeed passed from the level plains of the morning into an area that was downhill travelling. Still, we went on for hours without finding the ice. Again, I began to doubt his ability to find the way. I wondered whether he was perhaps just trying to make me feel better. I said, 'You shouldn't say you can find Foxe, when you can't.' He pointed to the pattern in the dark blue band to our left, and said that he knew this; that the water continued for some distance ahead of us, then met the ice of the floe edge. Now, he seemed to really have his bearings. He was so sure of himself that he did not want to build a snow house and stop for the night. He assured me that he could find the way in the dark.

We passed through more of the dense white mist of Tuesday night, and I reminded him that this was how we had got lost then. Was he *sure* he could find Foxe like this, or would it be better to wait until daylight? He said, 'I don't want. I don't get lost again.' I believed him, and our sleeping bags were so wet, that I didn't want to stop either, if we could avoid it. For awhile, the sky was brilliantly clear, and the stars all out. The wind had gone down entirely, and it was strangely mild. The Dipper was behind us, and to our left, right where it should be. Finally, we hit ice. We had not been long on the ice before I saw open water a stone's throw away, and knew we must be at the floe edge.

At times, it was rough going, wending our way through rugged pack ice. At two a.m. we saw the white glow of the revolving Foxe beacon, dead ahead. By now, it was necessary to keep moving my toes and my fingers to keep them from freezing. I was able to walk beside the sled from time to time, for the dogs were going very slowly.

We arrived at Foxe Nursing Station at approximately seven a.m. Saturday, November 16, 1963."

Not all teachers embark upon such ventures either by chance or by design, but the kind of courage and determination displayed by Miss Emmett will be required for a long time yet in northern Canada in winning the battle against ignorance, apathy and illiteracy.

The northern school profile is not one that is frozen into immobility. It exhibits an evolutionary pattern of education geared to cultural and social change. Because the salient features of this profile, the child, the teacher and the classroom are activated dynamically—and with purpose—Canadians can expect in the not too distant future that a new and refreshing northern influence will be woven into the fabric of our national life.

Appendix

Some statistics are necessary to complete an overall picture of the school, the teacher and the pupil in the Northwest Territories and Arctic Quebec.

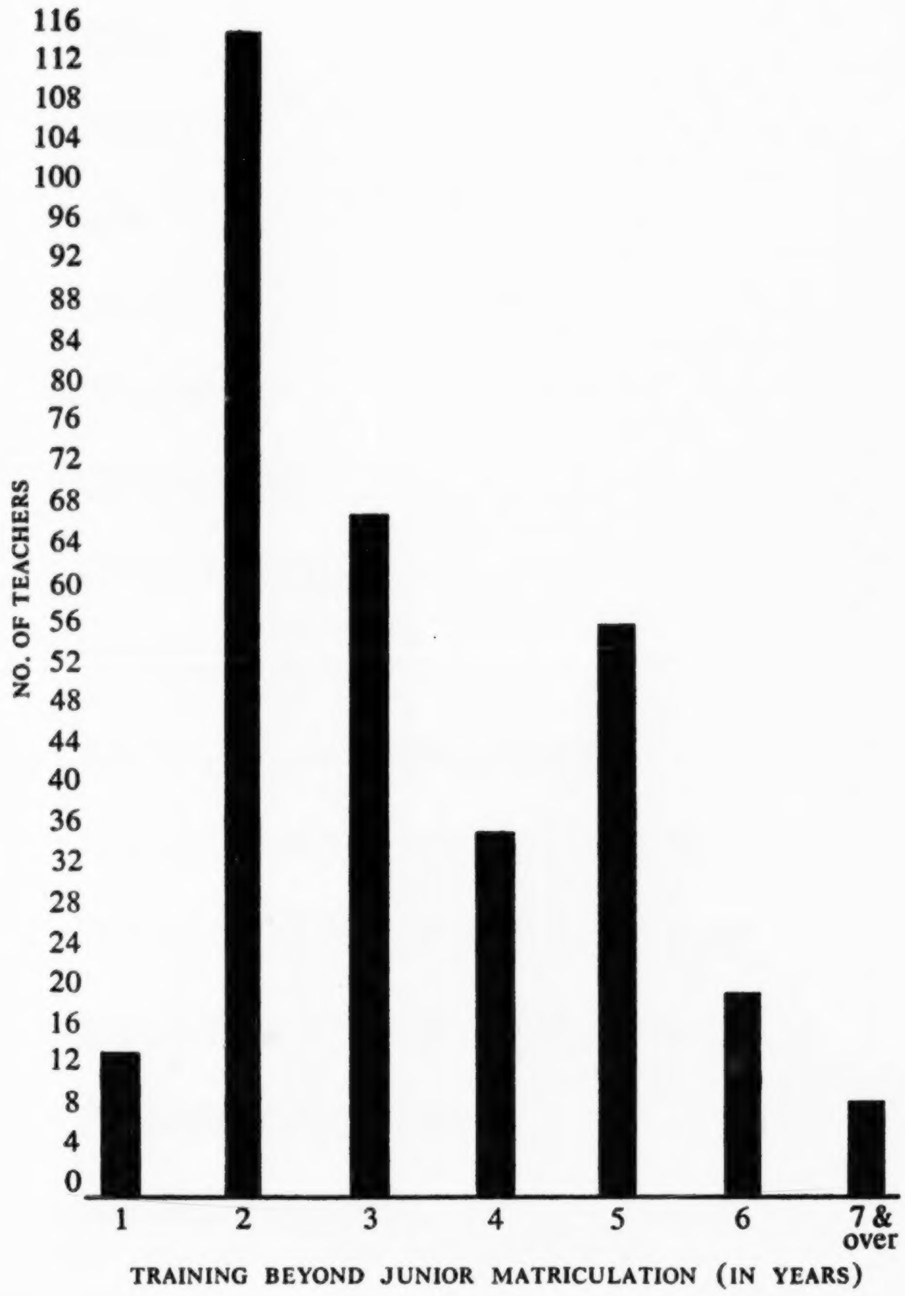
In 1963 its 60 schools had a school pupil population of 6260, of which approximately 19% were Indian, 40% Eskimo and 41% others. To staff these schools a total of 327 teachers was required. The teachers bring a rich and varied background of experience to their work as they hail from all 10 provinces as well as Great Britain, U.S.A., Eire, Australia, Jamaica and Denmark. In 1963-64, Ontario stood first in the matter of numbers with Saskatchewan a close second. Teachers with prior experience are given preference for appointment and as one would expect, fairly young teachers predominate. It is necessary to supply relatively well-equipped and well-furnished residences for teachers. Rations containing the staple items are available except in a limited number of larger settlements where retail and transportation facilities are fairly satisfactory.

The following sections present a picture of (a) schools, pupils and teachers; (b) qualifications of teachers; (c) experience of teachers.

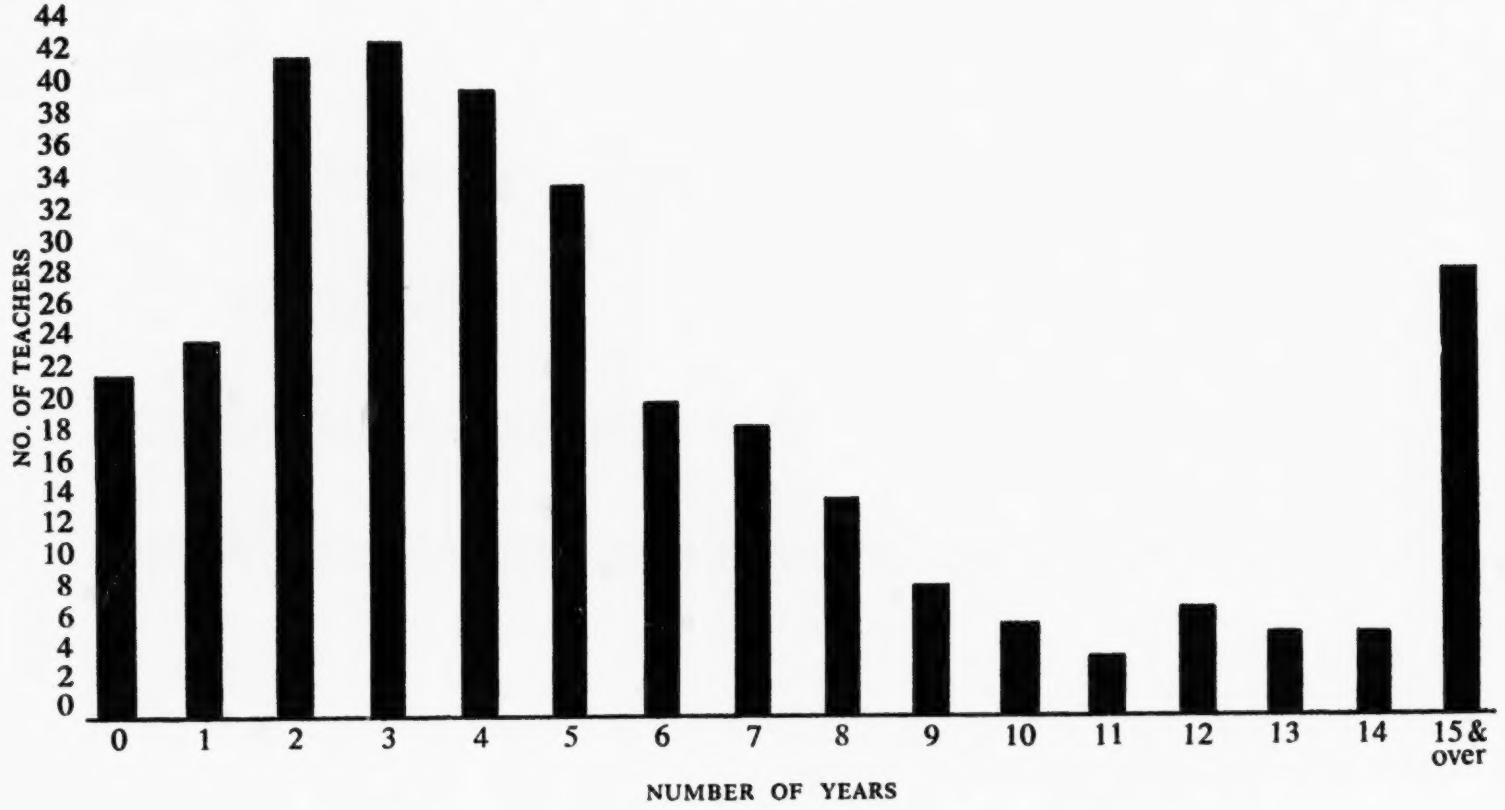
ALL SCHOOLS—NORTHWEST TERRITORIES AND ARCTIC QUEBEC

	1952-53	1963-64
Number of Schools	27	60
Number of Teaching Staff	58	327
Number of Eskimo Pupils	270	2536
Number of Indian Pupils	467	1184
Number of Others	786	2540
Total Enrolment	1523	6260

QUALIFICATIONS OF TEACHERS EMPLOYED IN THE NORTHWEST TERRITORIES AND ARCTIC QUEBEC DURING SCHOOL YEAR 1964 - 1965



TEACHERS' TEACHING EXPERIENCE OUTSIDE THE NORTH-WEST TERRITORIES AND ARCTIC QUEBEC TO JUNE, 1964



The above facts point up more clearly the rapid growth that has taken place. It is also apparent that the schools are staffed by an unusually well-qualified group of teachers with an ample and varied background of experience. Add to these factors the stimulus of a new and challenging situation and it is readily understood why Education has made such rapid strides in the Northwest Territories and Arctic Quebec over the past 10 years.

Chapter 9

The Centralized School

WHY IT WAS ESTABLISHED

Prior to 1947, when the Federal Government opened its first school at the little Eskimo settlement of Tuktoyaktuk on the remote shores of the Beaufort Sea, all education in the Northwest Territories was provided by the churches in either day or residential schools. Much credit is due to the churches for their contribution to the education of the children of the Northwest Territories. Many residents of the Northwest Territories, Eskimo, Indian, and even some white, may be classed as nomads. From ancient times the Indians and Eskimos travelled seasonally following the game, and moved to localities where the fish and the fur-bearing animals could be taken in abundance to provide human livelihood. Some whites, drawn by employment opportunity, move from one place to another and thus also lead a somewhat nomadic life.

The churches, recognizing this situation, established pupil residences and centralized schools in certain locations on transportation routes where the people settled for purposes of trade. Education was provided in either the small (usually one-room) day school or in the centralized larger school operated in conjunction with a pupil residence.

Since the parents of the children were nomadic, it followed that they moved out of the settlement each year for the fishing season, for the fine fur trapping season, for "ratting" and for the taking of caribou and other game. The result was that a child would attend school for only 75 or 100 days out of a 200-day school year, and as a result, he would take three years to cover a normal year's educational work.

For a normal year's educational programme to be covered, it was obvious that pupil residences would have to be provided where children could live while the parents were "out on the land". These the churches provided by means of Residential Missions. However, the churches did not have the finances to provide transportation twice a year to and from the pupils' homes. Because of this children often became more or less permanent residential pupils, losing contact with their parents, family groups and their own mode of living.

In 1955 the responsibility for the education of all Indian children in the Northwest Territories was transferred from the Department of Citizenship and Immigration to the Department of Northern Affairs and National Resources. In that year only 39% of the Indian children and 15% of the Eskimo children were attending school. The figures for January, 1964 were 72% and 75% respectively. As all residents of the Northwest Territories are citizens of Canada, every school-age child in the Territories is entitled to the same educational opportunities as are available in other jurisdictions of Canada. Hence, as a means of providing educational opportunities the Federal Government decided to set up pupil residences and centralized schools in the larger settlements of the Northwest Territories. A six-year programme calculated to make educational facilities at both the elementary and secondary levels available to all children in the Mackenzie District and to some in the eastern Arctic and in Arctic Quebec was instituted.

The only organized School Districts are the Yellowknife Public School District Number 1, the Yellowknife Separate School District Number 2, and the newly-formed Hay River Separate School District Number 3. Each of these districts operates a large school accommodating elementary and secondary school children. At present, there are two "company" schools in the Northwest Territories: a one-room school at Discovery near Yellowknife, and one of two rooms at Tungsten near the Yukon border. In the case of company schools, classrooms and teacher accommodation are provided by the company concerned. In other respects, these schools are treated as federal schools and their operation is financed in the same way as all others. The last full-time mission school closed in 1960.

To provide the best possible education for the children—the parents of whom are in the bush or on the trap lines for months at a time—in so sparsely settled an area, it seems obvious that centralized schools operated in conjunction with pupil residences furnish by far the best solution.

PUPIL RESIDENCES: THEIR ESTABLISHMENT AND OPERATION

In the Mackenzie District centralized schools and pupil residences built and maintained by the Federal Government have been established at Inuvik, Fort McPherson, Fort Simpson, Yellowknife and Fort Smith, each with a pupil residence.

In the Arctic District the largest pupil residence is at Chesterfield Inlet. Cottage type pupil residences have been built in 12 outlying areas to provide accommodation for eight pupils per unit. Thus a settlement may have a one-, two- or three-unit cottage hostel housing eight, 16 or 24 pupils, depending on the need. Pupils from these residences attend schools varying in size from one to six classrooms.

At Inuvik, located on the east channel of the Mackenzie River Delta about 70 miles upstream from the Beaufort Sea, a 43-teacher centralized school began operation in 1959. The two hostels, each with a 250-pupil capacity, house the non-locally resident pupils attending this school. These hostels are operated for the Federal Government, one (Protestant) by the Anglican Church and the other (Roman Catholic) by the Roman Catholic Church. General supervision and inspection are carried out by the educational officials of the Department of Northern Affairs and National Resources.

All pupils from both hostels as well as those from the settlement of Inuvik attend the Federal School in Inuvik, which accommodates pupils in Grade 1 to Grade 12 (senior matriculation).

At Fort McPherson on the Peel River channel of the Mackenzie River about 160 miles up river from the mouth is located a 100-pupil residence operated for the Federal Government by the Anglican Church. All pupils from the residence and from the settlement attend the eight-teacher Federal School. Some 30 to 50 local pupils, all of the Protestant faith, attend this centralized school. This school and residence opened in January of 1958 and accommodates Grades 1-9.

At Fort Simpson, where the Liard River empties into the Mackenzie, a centralized school employing 18 teachers went into operation in 1960. Here two pupil residences were built, one of 50-pupil capacity for children of the Protestant faith, and one of 150-pupil capacity for children of the Roman Catholic faith. These, too, are operated for the Federal Government, one by the Anglican Church and the other by the Roman Catholic Church. All pupils from the residences as well as from Fort Simpson attend the new Federal School, which handles pupils in Grades 1 to 10.

Fort Smith serves as the Administrative Headquarters for the Mackenzie District. Here a centralized school with 29 teachers began operations in December, 1957. Fort Smith is situated on the southwest side of the Slave River opposite the Rapids of the Drowned. It is about 100 miles up river from the Great Slave Lake. A 200-pupil residence was built and went into operation at the same time as the Federal School. This is operated for the Federal Government by the Roman Catholic Church and houses pupils of the Roman Catholic faith who attend the Federal School. Pupils of the two faiths from the town also attend the Fort Smith Federal School.

At Yellowknife, situated on Yellowknife Bay on the north side of Slave Lake, the Federal Government built and opened, on September 1, 1958, a 200-pupil district secondary vocational school known as the Sir John Franklin Composite Secondary School. A 110-pupil residence known as Akaitcho Hall was built at the same time and this residence is operated by the Department of Northern Affairs for the Federal Government.

This centralized school has a dual purpose. First, it is designed to offer the secondary grades and full senior matriculation courses. Second, it provides pre-vocational and vocational courses to pupils aged 14 to 30. Pupils come to Akaitcho Hall and Sir John Franklin School from anywhere in the Mackenzie or even from the Eastern Arctic, provided they can meet the entrance requirements. These are steadily rising. A recent 110-pupil extension to Akaitcho Hall has just been completed and a six-classroom addition to Sir John Franklin School is under way.

The Sir John Franklin School in Yellowknife provides an academic education for pupils in Grades 10-12 from the town of Yellowknife and for any pupil in the Mackenzie District or Eastern Arctic who has passed the Grade 9 Departmental Examinations and who is from a community where secondary schooling is not available.

It should be understood that all schools in the Northwest Territories are completely ethnically integrated. No feeling of animosity exists between the various groups of differing racial backgrounds. These pupils live together in the residences. They share the same social, cultural and educational experiences and in the case of the federally-operated Akaitcho Hall there is no religious segregation. Sir John Franklin School has a staff of 13 academic course teachers and five vocational course teachers. Pupils following a vocational pattern are given daily classes designed to upgrade them academically as they follow their respective patterns. Home economics, homemaking and commercial courses, as well as the strictly academic patterns, are followed by the girls. For boys, heavy equipment operation and maintenance can be taken. Welding, both arc and oxyacetylene, sheet metal work, carpentry, including woodwork, machine shop and automotive mechanics, electric wiring, house construction, drafting and vocational mining are some of the courses.

In order to ensure a well-articulated programme for the residence and the school, the supervision of both units is the responsibility of the school principal.

It should be pointed out that because schools have been in operation in the eastern Arctic for so short a time few schools there teach pupils beyond Grade 6 at present. The 16-teacher Frobisher Bay School has two teachers offering subjects in Grades 9 to 12; the school at Chesterfield Inlet (6 teachers) offers classes up to Grade 8; and the six-teacher school at Fort Chimo offers classes up to Grade 9. Schools at Rankin Inlet, Whale Cove, Great Whale River, Baker Lake and Sugluk also have a few pupils in Grades 7 to 10. Some academic pupils from the eastern Arctic who are in the secondary grades attend school either in southern Canada or in the Mackenzie District. Some pupils from the eastern Arctic who wish to follow a vocational pattern attend the Sir John Franklin School and live in its accompanying residence, Akaitcho Hall. Some, in increasing numbers, are placed in vocational schools in southern Canada.

In 1953 there was an estimated enrolment of 913 pupils in the federal and municipal schools of the Northwest Territories. In 1963 this figure had increased to 5525 (plus 735 for Arctic Quebec) due mainly to the erection and operation of centralized schools with pupil residences and to the building of smaller schools with cottage residences.

Present plans of the Department of Northern Affairs and National Resources call for full opportunity for attendance at school of all school-age children in the Northwest Territories and all school-age Eskimo children in Arctic Quebec by the year 1968.

For purposes of clarification it should be noted that in the Mackenzie District the courses of studies prescribed are similar to those prescribed in the Province of Alberta. The same examinations are used in both jurisdictions. In like manner, the courses prescribed for the schools of Keewatin, Baffin Island and Arctic Quebec are similar to those prescribed in the adjacent provinces of Manitoba, Ontario and Quebec.

TRANSPORTATION

During the school year 1963-64 there was accommodation in the Northwest Territories in all pupil residences, large and cottage type, for some 1440 pupils. The "pick-up" of this number of pupils from such a widespread area presents an extremely difficult problem in logistics. When it is further considered that pupils of the Roman Catholic faith must be housed in a pupil residence operated for the Federal Government by the Roman Catholic Church authorities and those of the Protestant faith in a pupil residence operated for the Federal Government by the Anglican Church, the problem is still further complicated. This religious separation does not apply to pupils in Akaitcho Hall.

It goes without saying that the transportation of pupils to and from hostels is carried out in the main by aircraft. The distance from Fort Smith to Coppermine by air is approximately 575 miles and while summer weather may prevail in Fort Smith with a temperature of 76° Fahrenheit, winter may reign in Coppermine with the thermometer at 0° Fahrenheit. Under these circumstances, planes in Fort Smith will be operating with pontoons while planes at Coppermine are still using ski-wheels. Weather-wise, too, vast differences exist east-west from Aklavik to Boothia Peninsula. West of Boothia Peninsula tides are practically non-existent, whereas on the eastern side of the Peninsula, tides may rise to 20 feet. This affects the break-up of the ice and in turn means that a plane equipped with ski-wheels can operate at Coppermine while a pontoon-equipped plane is required to operate at Pelly Bay on the east side of the Peninsula.

When the policy of establishing large pupil residences was decided on by the Federal Government, plans were laid to have children who were enrolled in these pupil residences returned home for the summer vacation. This is now common practice and while it is difficult on parents, it is an improvement over much earlier practices where children who wished to attend school were often not able to return home during the summer.

In September of 1959 when the pupil residences at Inuvik began operation, there was some reluctance on the part of parents to agree to part with their children. Past experience seemed to indicate that they might not again see their sons or daughters for two or more years. However, when the pupils were duly delivered to their homes along the Arctic Coast at the end of May, all resistance to sending their children to the residences seemed to disappear. Holiday periods are flexible due to trapping seasons and the necessity of returning some children to remote settlements before the spring ice break-up, etc. The result was that in the space of two years more children were available for school admittance than the accommodation provided.

Anthropologists and sociologists decry the idea of pupil residences for school-age children, claiming that hostel life destroys the sanctity of family life, breaks up all family ties and in short is a practice to be avoided at all costs. It is a pity that these exponents of the value of home living and parental ties have not had the experience of living in a skin tent, a snow igloo or a plywood shack. It would appear that their judgment of what constitutes ideal family life is coloured by their own experiences where family ties are strong and home conditions ideal. Such ideal home life is almost non-existent in the native homes in the outlying parts of the Northwest Territories.

Carefully prepared admittance forms must be signed by the parent or legal guardian *before* a pupil may be admitted to a pupil residence. If the parents cannot write he or she makes his mark and this must be witnessed. Parents give approval for medical care and for admittance to residence only when they are satisfied that everything is as it should be. The parent must also specify which residence, the one operated by the Roman Catholic Church or the one operated by the Anglican Church. Medical examinations are carried out for all pupils admitted to the residences.

The plan of equalizing educational opportunity provides for the defrayment at public expense of the costs of transportation to and from a pupil residence, lodging, board, and necessary clothes for pupils while in residence. All pupils receive the best of care. Regular health checks are carried out. In each of the large pupil residences there are modern up-to-date sick bays and modern dispensaries.

If there is a school operating in the settlement where a pupil lives and if the school is teaching the grade in which the pupil stands, the pupil is not admittable to a pupil residence unless, of course, he or she has exhibited special talents along some vocational line. An example would be an Eskimo girl, 14 years of age, of Grade 5 level with training in a nursing station and wishing to qualify as a nurse's aide. She would then be eligible for admittance to Akaitcho Hall and Sir John Franklin School in Yellowknife. Another girl might exhibit talents as a hairdresser; she would be eligible for vocational grants to go to a hairdressing school. A boy might show special aptitude as a mechanic or a carpenter even though only at Grade 6 level. Such youngsters are eligible for training at Sir John Franklin and residence at Akaitcho Hall. The age-grade retardation referred to here could be due to lack of earlier schooling opportunity, or to language problems.

When all arrangements have been made, small planes equipped with either pontoons or ski-wheels, must go to the isolated posts to gather up the pupils. They are brought in to a "holding centre" such as Yellowknife, Norman Wells or Cambridge Bay where they are cared for and bedded—sometimes in a school classroom which has been temporarily equipped for the purpose. When 60 or so such pupils are gathered together in this manner, a DC3, DC4 or a C46 (which has a passenger load of 60) is despatched to pick up the pupils and transport them to their ultimate destination to settle in for the work of a school year. At the close of the school year the following

June, the whole process is repeated in reverse and pupils are dispersed once more to their home locations for the summer holiday period.

This whole "airlift" has to be specifically correlated and timed to within a few days. When bad weather intervenes the whole schedule is upset and difficulties arise. Weather may be bad at one location and good at another, but it must be good at both departure and arrival points.

Such are some of the problems of operating centralized schools in the Northwest Territories. Costly? yes! Rewarding? yes! Worthwhile? definitely, yes! A person involved in this work can be guaranteed disappointment, frustrations, delays, and bad weather but, to compensate, intriguing and interesting experiences that have absolutely no counterparts anywhere.

Chapter 10

Beyond the Threshold

A few short years ago a proposal to extend universal education to include all people in northern Canada might have been considered as an unrealistic and impracticable notion. This is now no longer a dream: universal public education is rapidly becoming a reality. In this Chapter an attempt will be made to project this reality into the future and to predict what is yet to come in education, particularly as it relates to the indigenous people within the Northwest Territories.

The Territorial-Federal Government agreement of 1955 provided a pattern for a fully ethnically integrated universal system of public education. It is planned to have, by 1968, classrooms available to accommodate all school-age children. Through this provision it is expected that almost all the younger generation will be accommodated in school by the target year.

What motives have urged this great trek to the school room? Is it realistic to interject the modern classroom with its highly qualified teacher, its periodic health checks, its hot lunch and vitaminized biscuits, its automated equipment, and its adapted versions of the "Dick and Jane" fantasies among the dwellings, the log cabins, the tents and the igloos of the north?

Some people have questioned this "intrusion", and some, more imbued by custom than by a feeling for the universality of a basic right, while agreeing to the extension of education to the white segment of the population, plead for leaving the indigenous people alone in their so-termed free and happy state. This plea, however often and sympathetically it is made, is inconsistent with the events taking place in the developing countries in different parts of the world. It is lost on the pupils. It contradicts the aspirations of parents who not only wish to send their children to school, but willingly wave them farewell as they board a plane and are wafted many miles from home to stay months on end in a well managed residence adjacent to a school.

In this respect the people in the north are no different from people elsewhere. It would be an exaggeration to say that the indigenous people of the north are all fully aware of the great changes that are taking place in education and, in fact, as is true elsewhere, there are indeed many reluctant learners among these northern people. However, a new day is dawning and new attitudes are developing. At no time in all history have so many people in every corner of the world known such enthusiasm for learning. The dominant characteristic of the current global revolution in self-determination rests not only in the souls of ambitious leaders but is shared universally in the minds of men everywhere, and is revealed in their desires to achieve their own betterment by becoming partners with others in knowledge. This revolution has set the world aflame, and has resulted in a completely new kind of upheaval. Recent and rapid developments in three aspects of life,

(1) in man's eagerness to aid others and thus accelerate cultural exchange and mutual understanding,

(2) in air transport, which has thrust new dimension into physical human proximity and erased isolation from any part of the globe,

(3) in communication, which makes information easily available to all,

have served to render any segment of the globe a neighbourhood community to any other. Under these circumstances how natural it is that the good things of one community should be reached for by another!

The Canadian taxpayer, through the Federal Government, encourages these aspirations. Support is offered educational programmes in many foreign lands. Each year teachers from Canadian schools are enlisted, brought together for briefing sessions, and sent off at the expense of the Canadian taxpayer to offer schooling and training to people in different countries all over the globe. In like manner the people of Canada are committed to the belief that equality of educational opportunity should be extended to all Canadians, so that all, sharing as equally as their talents permit may in reciprocation serve each other equally well.

There are other intimate personal reasons why the Eskimo, for example, seeks to have his children educated. He faces stark truth with realism. He knows his life is a rigorous one, and that for many, as time passes and change occurs, the present ways of life will not be viable. He knows that he is part of a culture in transition, and for some of his offspring alternative choices must be exercised. He wants his children to be educated and trained in order to have choice open to them.

THE FUTURE

As time passes and as education spreads, what choices does the future offer? There is little doubt but that many of the aboriginal people will continue to struggle for a long time to come with the elements and with the harsh environment in a never-ending battle for subsistence. Others, as opportunity affords, will turn in growing numbers to wage employment.

How best to offer the service most necessary for those for whom change has no great appeal and at the same time to accommodate those involved in this great transformation is a puzzling question. The greatest hope lies in the right kinds of education and training—and in the provision of such educational and training opportunities, both formal and informal, as fall within the compass of meaningful everyday living activities. To achieve these, time schedules will be subject to change and modification, and the programming of learning activities will be built about community life both for the young and for the old. For the indigenous people this education and training has been planned to meet the requirements of those in three different age groups: the adolescents and young adults, the older adults, and those who form the younger generation.

THE ADOLESCENT AND THE YOUNG ADULT

For those who are now just beyond school age, the future is full of problems. Many of the younger persons in this group are not inclined to follow the ways of their fathers and, not having had the education necessary for effective training, are not ready for alternative employment. Until very recently, schooling has not been open to them. Even though schooling is now available the background experiences of many of those in this group are foreign to the discipline, the restrictions, and the regimentations demanded by formal instruction. For this reason many among them have not taken to schooling, preferring rather to pass their time in what some regard as aimless activity.

One of the great tasks of the future is to discover the kinds of educational experiences and activities to which these young people will respond. A second task is to find a way of making such experiences a part of their lives. One may suspect, as some already have, that an effective approach to this problem will differ vastly from much of current practice and that instruction, by whatever means, must exist in substance as well as in form.

Not all of these young people are, however, lost forever to the school. Some, more willing than others, possess a great degree of adaptability and have already embarked upon a planned programme of education and training. For these, education at an accelerated pace has and will continue to be offered as long as it is required. Because of the maturity of this group, re-organization, concentration and modification of course content offer opportunity for good progress. The present practice of bringing young people together into central or into feeder schools for academic upgrading and for pre-vocational education and training in subject matter areas meaningful to them will continue. The teacher will become more and more an individual worker. Counselling services will be expanded. In some cases the present practice of offering special instruction in provincial settings to small selected groups will go on. Some in this group who show special aptitudes, perseverance and accomplishment will be given further education and training even into technical schools and possibly into university. Although the opportunity to learn will be there, and notwithstanding the studies now under way to identify the more able, it is not expected that many in this group will achieve a sufficiently high level to pursue extensive studies in higher education. Many will continue to fit themselves for earning a living as clerks, or as nurses' aides, diesel operators, heavy equipment operators, carpenters, plumbers or tradesmen in other fields.

Recently plans have been implemented to establish a vocational education and training centre at Fort Churchill, Manitoba, where workshop facilities formerly used by the Department of National Defence have been turned over to the Department of Northern Affairs and National Resources. These extensive facilities have been transformed into an educational complex which will offer academic upgrading, pre-vocational and vocational training in one integrated educational effort. Steps have been taken to staff this school with top-flight teachers and to provide them with the most recently developed equipment that has proven to be successful in the most modern schools.

Because extensive opportunity for employment is related to the mining industry, and because many of the trainees are young men, an experiment is under way in the Sir John Franklin School in Yellowknife to offer training related to that industry. It is too early to predict the results of this experiment but it is certain that opportunity for many young men will lie in mining. Good progress has already been made in this direction. An expansion of the programme for the young adults is being planned and it is expected that many more young men will participate in it as time passes.

THE OLDER ADULT

The older segment of the population faces the future with cheerful stoicism. Each within this group is himself prepared for what may come, but each is anxious about his children. Some in this older group have already abandoned the "life on the land" and have found other employment. Among these are a number who have recently found work with mining companies.

As one looks into the future one realizes that there will continue for some time to be a number among the adult population who, even though they have not yet equipped themselves for wage employment, may still be interested in doing so. For these the opportunity remains open, and will continue to remain open so they may be assisted in acquiring that knowledge and those skills that will render them more effectively employable. For this purpose instruction in many fields including, for example, even natural resource harvesting, will be available.

Just as is happening throughout the rest of the country, the need for continuing education will become more pressing. Greater efforts will be devoted to meet this need. At no time in history has man found it so easy to render himself obsolescent. This is as true in the Territories as it is in southern Canada. To meet this situation further education and training, upgrading and re-training programmes will continue to be provided.

Among the indigenous people the problems associated with the accommodation of the educated young within the family circle will loom very large indeed. To avoid the development of an unnatural division between child and adults, health and adult educators will face tremendous tasks. The danger of rending asunder two generations by extending primary and secondary schooling to the youth without concomitant educational activities among the adult population is very great. Much effort will have to be put forward by educators in their work with the adults—in preparing special instructional material in printed booklets, on slide films, and for radio presentation. Although the achievement of literacy is only one aim of adult education, great emphasis will be placed upon it. The broader concept of "social education" as interpreted by workers in the developing countries will be given great emphasis.

The Eskimos in northern Canada have a single language. However, due to vast distances and resultant difficulties in communication between groups of Eskimos, this language over the years has been fragmented into many dialects. The dialects are sufficiently diverse that, when reduced through syllabics to written form, this writing cannot be understood by all alike. To overcome this situation there has been developed through the use of Roman characters a standard Eskimo orthography. This system of writing is now ready for first application and will be introduced as part of the adult education programme. Soon sufficient persons will become knowledgeable enough to teach the new orthography and it will then be introduced to the adults. Later it will be introduced to the Eskimo children as a subject at about the grade 4 level.

It is hoped that the introduction of the standard Eskimo orthography will aid communication and facilitate the dissemination of information among the Eskimo people. It will help also in perpetuating thoughts, beliefs and ideas that are dear to the Eskimo people and that otherwise might be lost. In this way elements of the culture will be preserved. For those among the older generation who embark upon the long, puzzling and perilous paths that span two cultures, the development of the new orthography will offer, during the journey, self-sustaining reassurance. In this way they may hold firmly by one hand to the past as they grasp more timorously, with the other, the future. For the young the new orthography will serve to maintain a cohesive link between themselves and their elders. Much more reading material in the new orthography will be made available for the adults and a systemized plan of adult instruction will be set forth in appropriately readable form.

THE YOUNGER GENERATION

The brightest hope in northern Canada, however, rests with the rising generation. A glance at the enrolment in the 850-pupil school at Inuvik, for example, indicates that it will not be long before the progression through the grades will see the upper grades of the secondary school very well attended. Already a trend has begun that suggests a rapid decrease in drop-outs from the secondary grades. It is safe to predict that in a very short time retention rates will surpass many of those now found in southern schools. How could it be otherwise? It may take a little time to build an academic tradition from which the rising generation can draw inspiration, but with the policy that has just been adopted to use public funds to finance students through four years of university, teachers and parents may plan future education and careers with pupils. This planning can commence at any stage in school with the certainty that schemes can be fulfilled, provided only that the pupil succeeds in passing the necessary examinations. To aid in accelerating progress, especially in language teaching, school time will be increased in many centres through the operation of more summer schools and the extension of the school day. These summer schools are for children not registered in pupil residences but who live on the land with their parents and are unable to attend school regularly during the school year. To aid pupils to understand the values of education and to introduce them to ever changing educational opportunities that lie ahead, the school counselling services will be greatly expanded. Attention is being directed to opportunities in both northern and southern Canada for professionally trained personnel and it will not be too long before the doctors, lawyers, geologists, engineers and teachers for the north will be recruited from the graduates of northern schools.

Not all will wish to follow the academic route. For many, vocational and technical schools will have an appeal; for others, the newly enacted Apprenticeship Ordinance provides opportunity for orderly training, the completion of which results in fully-fledged trade qualifications.

THE LANGUAGE OF INSTRUCTION

It is not proposed that the language of instruction, English, be superseded by the Eskimo or by the Indian languages. To do so would be to restrict opportunity, because the fabrics of these indigenous languages are not extensive enough to carry into advanced studies. Opportunity must be left open to advanced study or progress would be retarded. Through these indigenous languages hardly more than an elementary education could be achieved. To offer the broader fields of knowledge one must employ a channel of communication along which all knowledge may flow.

The language of instruction is English because the language of commerce is English and because teachers who are able to teach it are available. The present practice of employing suitable Eskimos and Indians with a knowledge of English to assist the teacher with the primary pupils will be extended as more competent persons become available. This assists the pupil and the teacher during the pupil's orientation period and helps the teacher in his mastery of the local language.

As soon as accommodation has been made available for all school-age children, kindergartens will be opened wherever accommodation can be provided. When children can be brought to school each day, the four- and five-year-olds will be accommodated. By this means, language will be more readily and effectively learned. Mothers will be invited to participate in kindergarten management and in this way will not only contribute to their own children's education but will also become a part of it. In this way, too, education will become an instrument in social change.

In the schools more and more attention will be devoted to curriculum adaptation and adjustment. In a short time new courses of studies will be completed and introduced into the elementary schools. In this way it will be possible not only to make use of local knowledge as an aid to learning but also to emphasize those elements of local culture that will help the young to understand and appreciate the traditions, beliefs and mores of their own people. All this will focus not only upon a truer understanding of the relationships between man and man, and man and his environment, but will also offer a better insight into man's universal heritage. Such understandings will aid greatly in bridging the gap between the generations.

The teachers, too, will be encouraged to learn more about their pupils—the language, the customs and the habits of the people. At orientation courses and during in-service training meetings, regularly held, anthropologists and sociologists will act as resource persons. Teachers will be encouraged to learn the language native to the people of the community where they teach. The adult educators especially will become fluent in the native language. To aid in this purpose persons with special knowledge will hold language workshops in northern centres for teachers and adult educators. Provision for university extension courses in remote places, where there are sufficient teachers to warrant it, will be broadened so as to offer greater opportunity to teachers and others to continue studying. In due time more Indians and Eskimos will qualify as teachers and will themselves join with others in teaching the children in the schools and the adults in the settlements.

CONCLUSION

In short, the people within the Territories and Arctic Quebec have open to them an education equal to any offered in any part of Canada, together with an opportunity at the end of general education of carrying on with education and training directly into gainful employment. The education and training beyond the secondary school is financed by public funds and can take the form of trade, technical or professional training.

This, then, is the structure and the recently completed plan of the school system of the Territories and Arctic Quebec. Under this plan all segments of the population are included and all are financed through public funds, with general school for the young, vocational, technical and professional education and training for the youthful, and adult or continuing education, as well as vocational education and training, for the older generation.

While these provisions have now been made, it will be some years before the full effects of them will be seen. There can be no denying that many painful adjustments will be experienced during the transitional period through which some of the people of the north are now passing, and will continue to pass for years to come.

All this has been planned with the firm conviction that waste in education must be avoided, and that the careers of young people are too precious not only to themselves but to the whole of society to be suspended in mid-flight or left to chance. Many years ago in southern Canada a decision was made to underwrite secondary school education with tax dollars. It was argued then that every public dollar spent in secondary education would pay its way. It is believed by those who plan northern education that for those able to profit by it the most effective and therefore the most economic dollars spent in education are those used to defray the costs of higher education. As in a commercial enterprise, each dollar invested in productive effort becomes progressively more economic as the product more closely approaches its ultimate completion. This is so because the product takes on an ever-increasing value until it becomes a finished article of commerce. If this were not the case the demand for a product at any earlier stage in the completion process would determine its greatest degree of market worthiness and at that stage it would move freely into the market.

This analogy is drawn not to compare the product of education with that of commerce, but rather to relate the effectiveness of the dollars spent at each stage in both processes.

In the Territories and Arctic Quebec there is little doubt that a great breadth of educational opportunity now exists for those who wish to avail themselves of it—an opportunity that possibly transcends any other on this continent. May the people of the north use well the opportunity extended to them and may the rising generations as they avail themselves of this opportunity ensure in turn the same for their offspring.